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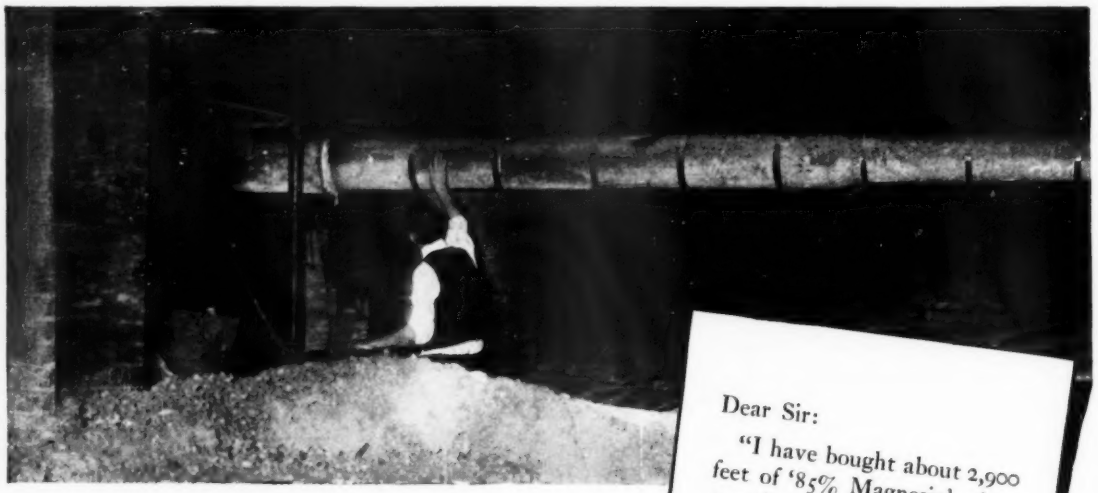

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Shadows and Straws

IN COMMON WITH OTHER PUBLICATIONS, we are obliged to ask the indulgence of our readers for such delay in the reception of their Journal as may be occasioned by the overburdened mail service, and we earnestly request that we be notified when copies of the Journal are not received within a reasonable time, for losses in transit are not otherwise discoverable by us.

We are also at a further disadvantage, due to the fact that we are dependent upon the mails for the transmission of copy and proof, and thus the March issue went to press containing several errors and omissions because of the failure of the post. Otherwise we would have explained that the illustrations of the French houses were made from the plates published in *L'Illustration*, our own photographs still being delayed. There were several other minor errors to which we will not allude, in the hope that only those who perceived them may look kindly upon our explanation.

THE HOUSING ACTIVITIES of the Shipping Board have accelerated their pace during the last few weeks. The organization of the Production Division (Housing), in charge of Robert D. Kohn, of New York City, indicates that actual operations will soon be under way. Assisting Mr. Kohn in the direction of this work, will be Ernest J. Russell, of St. Louis, Frank Goodwillie, of New York City, and Alexander Bing, also of New York. A fourth assistant may be added should the present scheme of organization remain as at present conceived.

Next in line come the Construction Department, the Engineering Department and the Design Department. The first is in charge of W. G. Luce, of Chicago, and is coördinated with the Cantonment Division in the matter of making purchases. This department has its corps of local inspectors and its expediting and purchasing organization. The Department of Engineering is in charge of Morris Knowles, and will deal with the questions of sewers and streets and other public utilities. The Department of Design is in charge of Frederick L. Ackerman, with B. A. Haldeman, of Philadelphia, having direction of the city-planning work. Andrew Thomas, of New York City, will have supervision over architectural standards and the examination of plans, while a competent corps of estimators and draughtsmen will be attached to this department.

This is the personnel, up to the present time; but Washington changes so fast nowadays that one hardly dares record a matter of this kind in a monthly publication, lest it be quite wrong by the time it reaches the subscriber.

APPLICATIONS FOR AN ALLOTMENT of the still unappropriated sixty millions of dollars for housing continue to pour in upon the Department of Labor's housing bureau. The task of investigating these requests and of establishing clearly defined needs will call for an extraordinary tact, patience, and intelligence. But enough imperative needs are already known to indicate that the appropriation of fifty millions will not by any means meet the demand. The other ten millions carried in the bill are for

housing accommodations in the city of Washington. Nothing has yet been definitely decided in this particular, but it seems likely that the land taken by the nation for a park in front of the Union Station will be utilized for a series of apartment hotels, temporary in nature, and designed comfortably to house the great number of single men and women who are coming to Washington in greater numbers. Still further relief could be provided in Washington if the thousands of army officers now living in the city were provided for by barracks, perhaps in East Potomac Park.

Congress intends that only Government-owned land shall be utilized for housing purposes at present, and it is also necessary to consider the already serious transportation problem in working out a right answer to Washington's present congestion. The spirit which at first manifested itself in Congress as opposed to any utilization of the oval in the rear of the White House will perhaps now give way to the necessities of the moment, and it is possible that more temporary apartment hotels may be erected on this space, since it is conveniently located for thousands of departmental employees.

Washington is at present in the throes of a fever of temporary building. Between the Washington Monument and the Lincoln Memorial one might easily suppose that a gigantic canal was being constructed, but in reality the foundations are being put in for the huge concrete office building which is to be erected on this site, and which will no doubt stand for many years. In fact, the vastly over-populated capital is today more like a mining camp under the fever of a new discovery of gold than like the peaceful capital of the nation ready to put on its incomparable spring raiment. The exigencies of war have descended upon it relentlessly, and its dangerous streets, overcrowded transportation facilities, and general disarray, combine to strike the observer with a momentary pang of regret, even though the sacrifice be a willing one.

IN THE SENATE, during the recent discussion of the Housing Bill which has encountered a series of delays that cannot be reconciled with the gravity of the emergency the bill is designed to relieve, Senator Thomas, of Colorado, made a statement which has an especial bearing upon the question of low-cost housing. He was speaking particularly of that portion of the bill which has to do with the house shortage in the city of Washington, and said:

> "So far as this bill relates to the District of Columbia, and perhaps in its entirety, it suggests to my mind the one material and substantial method of relieving the embarrassments of Government employees. I have always contended that increases of salaries in times like these, like increases of wages, only serve to swell the profits of landlords and supply dealers, because they elevate their prices in proportion as the capacity of the consumer increases. The only effect of the bill which we passed yesterday, by means of which some twenty-odd millions of dollars were added to our annual expenditures, will be to transfer that much money, through the medium of the employees of the Government, to those who deal in the necessities of life."

Senator Thomas has here hit upon an aspect of our economic system which the war has emphasized to a glaring degree.

CONSIDERABLE PUBLICITY has been given to a tentative set of standards prepared by the Housing Bureau of the Department of Labor, and in a public announcement the *Architectural Record* refers to these as constituting a "new Federal housing code." It would be regrettable if a work which, as is clearly stated in the preamble thereto, is "not intended as inflexible requirements," should generally be accepted as a hard and fast "code." In the first place, these standards have been considerably revised already, and they are still subject to revision. They are to be utilized as a series of recommendations and, instead of completely anesthetizing the architect by subjecting him to a rigorous and inflexible code, are intended to give some latitude to his genius and talent. Violations of the elementary principles of good small-house planning will be rejected, but every serious and thoughtful effort toward improvement will be carefully considered and accepted, wherever possible.

The standards are not yet ready for publication, nor have they been officially adopted by either the Department of Labor or the Shipping Board. It seems particularly unfortunate that a hasty draft, given out in proof form only, should have been utilized to give the impression that this country had a "new Federal housing code."

SHADOWS AND STRAWS

A FEW MONTHS AGO the Philadelphia Chapter of the Institute initiated a study of local housing conditions, moved to this action by the lack of decent living quarters for war workers. Beginning with the purely local situation, the necessity was quickly seen of visualizing the problem from a far broader point of view, since the wise location of one group or community could be suggested only after a careful study of the whole great industrial section bordering on the Delaware River. This study developed the fact that freight destined for Philadelphia and adjoining places was being unloaded at Easton and Reading, sixty miles away, and thence delivered to its destination by motor trucks which were obliged to use the city streets of Philadelphia, even when in transit to Trenton on the one side or Wilmington on the other. This led to a consideration of thoroughfares and the suggestion that by the construction of two or three connecting links, this traffic could be diverted at Conshohocken and attain its destination at the riverfront, outside of Phildelphia, without passing through that city. It further developed that the question of water transportation for the port of Trenton could be solved by the construction of a great basin adjoining that city, thus avoiding the problem of dredging the river, a problem of almost insurmountable difficulty. Thus the primary problem of housing was expanded into a great broad-visioned scheme looking toward a vast and comprehensive development of one of the greatest industrial areas in the world. The work of the Chapter was quickly appreciated by the city of Philadelphia, and at a meeting with the Mayor the Chapter was formally requested to continue its studies, in order that as soon as possible a convention of the governing bodies in all the sixty-mile area shown in the accompanying illustration might be called to discuss the question. What Philadelphia thinks of this work of the Chapter is well disclosed in the following editorial from the Philadelphia *Public Ledger:*

"The comprehensive plans committee has now had presented to it a large diagram map of Philadelphia and vicinity which takes in a sixty-mile radius, so far as the Schuylkill Valley and the Lehigh Valley go, and a thirty-mile radius along the Trenton-Philadelphia-Wilmington line. While this is a purely tentative survey of the underlying possibilities that inhere in the proper development of this section of the country as one of the great work-shops of the world, it is worth careful study, since it brings up clearly what unquestionably is to be the slogan of the future; and that is, the development of the countryside for industrial and commercial purposes through a larger use of motor-trucks than has ever been contemplated. We have had all sorts of suggestions for belt lines and new trolley lines, new railways and new railway connections, but the suggestion which has been made by the farsighted members of the local Chapter of the American Institute of Architects, for the connecting up of what might be called a series of industrial boulevards which shall drain into Philadelphia as the great port of entry and outgo, glimpses the situation from a new angle and one that is preëminently up-to-date." . . . . . .

"Philadelphia is on the edge of a newer and greater career. But to meet the opportunities there must not only be coöperation by all the communities that form the Philadelphia district, but more than that, the industrial competency of the whole region, its productive capacity, must be assured of an 'industrial drainage' of the most scientific character. This means not only an intercommunity drainage by means of the motor roads, trolleys, and railroads, which all bear on the food-supply, on the housing problem and on the proper location of industrial plants, but a continental drainage as well, by which the facilities of the port of Philadelphia will be used to the utmost. All these things are patent, but the results will never be garnered unless all those responsible get together and work as one body to a given definite end in the interest of a twentieth-century industrial city."

Thus the housing question assumes its rightful place, not as an incoherent attempt to deal with each problem separately, but as a great inter-related question vitally affecting each community. This is a service which all the communities are quick to appreciate, and is a convincing evidence of the fact that the way to gain recognition of the contribution which the architect has to make is not to clamor for it but to merit it by offering a constructive program on a scale commensurate with the needs of war and the whole tendency of broad planning for the future.

Inspired by this achievement of the Philadelphia Chapter, the Boston Chapter has inaugurated a similar survey. A committee has been appointed and is now at work making a study of the metropolitan district of Boston. It has received the enthusiastic sanction of the mayor and other city authorities and interests, and the city has placed at the disposal of the committee a sum of money with which to pay the necessary expenses. In both cities the members of the chapter committees serve without charge, and their work will be followed with eager interest.

PLAN OF PHILADELPHIA
& ADJACENT TERRITORY
SHOWING A DEVELOPMENT OF HOUSING, MOTOR-TRUCK, RAILROAD & WHARF FACILITIES IN CONNECTION WITH INDUSTRIAL EXPANSION
N

Sketch Showing the Work of the Philadelphia Chapter in Its Survey of the Industrial Area Bounded by Trenton, Wilmington, Easton and Reading. See page 161.

Placing the Building Industry at the Service of the Nation

ALMOST a year ago, when the building industry in this country was face to face with war problems and the question arose as to how it could best serve the Nation, the Journal of the American Institute of Architects in its issue of July, 1917, made the following statement:

"The building situation is clear: No work should be done which would hamper the work of war preparation and prosecution. On the other hand, it is, as the President plainly states, of the utmost importance that all industry be kept moving in close parallel to the true demand for legitimate needs. The country needs buildings of all kinds. How shall it proceed in order to meet that need in the fullest measure, with no impairment of the production of war material? The solution of that question depends, first, upon the final calculations of the Government's present and future needs for war, as a basis upon which to compute the price, kind, and quantity of building materials, labor, and transportation available for building; and, second, upon that form of patriotism such as will inspire all those in control of the manufacture and distribution of building materials with a desire to make a healthful building program possible. Given that desire, the question can be handled without any governmental investigation. It would be far better if, instead of tempting and incurring a price-regulative fiat, which has not worked out in other countries, manufacturers and distributors could meet and agree upon a patriotic basis.

"All forms of production in this country are represented by well-organized associations. Why cannot these highly systematized forces be put at the service of the Nation instead of remaining either inactive or selfishly occupied with their own particular affairs? While it is no doubt true that some organizations of the kind described have studied the question from the unselfish point of view, the amount of activity of that kind seems lamentably small in the face of the President's urgent request for coöperation. Here is an opportunity to make such a demonstration of patriotism as that for which the President has asked.

"Our suggestion is this: That every such organization meet and consider in what manner the industries it represents can be put wholly at the service of the Nation—and by wholly we mean just what the President means. We now know that the war will be won, not by the heroism of men but by the perfection of organization. Who can contribute more to such an end than those who have spent years in organizing the industries of our country into the strong group associations which now so widely obtain? It would seem pathetic if we cannot profit from England's example! Why wait for the Government? Why not meet it half way?"

Since that time, and due to the fact that the Journal's suggestion was not acted upon, except in a few cases, further uncertainties have developed. There have been issued, apparently with governmental sanction, numerous statements on the building situation. These do not in all cases coincide, either as to diagnosis or remedy, and it has become increasingly clear that in a country of this size no general rule can be laid down as a guidance for the building industry.

Above and beyond all other considerations, the fundamental principle that must actuate the analysis it is now proposed to make, stands this question: In what manner can the building industry serve the Nation in the highest degree? But this question resolves itself immediately into two parts: First, how can it contribute to the utmost speed in meeting the building needs of the Government? Second, how can it contribute, in addition, and without in the slightest degree impairing its primary service, to that industrial activity which is necessary in order to provide money for the war? This industrial activity concerns itself first of all with the problem of employing the maximum number of workmen who are not actually needed in direct war service.

The answer to these questions can come only through a patient, impartial, and thoroughly accurate investigation. There must be an orderly arrangement of facts upon which to base conclusions. To that end, the American Institute of Architects has accepted the task of initiating a national conference shortly to be held and at a place later to be designated, to which representatives of all factors in the building industry will be invited to come and take part in a discussion, first, of a plan for organizing this really tremendous undertaking, and, second, of providing the ways and means for putting that plan rapidly under way.

When there are considered the extent and possibilities of the service which thus may be rendered to the Nation, the profession of architecture may well feel proud that, almost by tacit consent, the task of initiating and helping to guide this work has fallen to the American Institute of Architects. Plans are already maturing for the calling of the conference, and it is expected that the time and place will very shortly be made known through the press of the country.

Notes on Rebuilding in France and Belgium*

By THEODORA KIMBALL†

THE most striking effect of the war on town-planning in Great Britain has been a recognition of the economic value of the garden-city movement, which has expressed itself above all in the new munitions towns, already familiar to readers of the Journal. To Belgian town-planners—some of them in England studying the garden-city developments, and some of them in Holland promoting an international project for the organization of city-planning knowledge—the war has brought the conception of a national plan for desolated Belgium,—to be national in scope and nationally produced. This conception has been sympathetically set before the Journal readers by Mr. Hammarstrand's articles. In France, with some of the most productive lands totally laid waste, the war has strengthened and crystallized the efforts for an official city-planning organization, and has also given rise to a movement manifested in the 1917 Exhibition of Regional Architecture and in the recent competitions for types of buildings practicable for after-war construction, yet traditional in the devastated regions.

Traditional Forms and Modern Needs

M. Lavedan's enthusiastic article, translated in the March Journal, shows with what ardor this idea of provincial individuality in farm and village architecture is being embraced. The present French movement has a comparative interest to anyone who has followed the "Old Cottages" revival of a dozen or so years ago in England, with its very considerable literature and its vigorous effect on the architecture of the modern English cottage; and similarly the *alte heimatlichen Bauformen* revival in Germany, stimulated by J. A. Lux and Paul Schultze-Naumburg. In discussion of cottage types suitable for garden cities, Mr. Culpin, of London, has commented on the excesses of this English revival. To the French architects who gathered at the Conferences held during the 1917 Exhibition of Regional Architecture,‡ M. Paul Léon—himself one of the foremost in the movement—sounded this note of warning:

> Some facts [shown by the Exhibition] cannot fail to hold the attention: the exact adaptation of the plan of the house to its economic function, the suitableness of its forms to the employment of the materials composing it; the justness of scale everywhere made appropriate to the modes of human work and to its daily necessities; the ornamentation introduced not for itself, but in answer to some need of life, whether it be a question of the painting of Flemish houses, of the *soubassements* of Champagne or Picardy, of the gables of the Ile-de-France.
>
> However fruitful these teachings may be, does it follow that the future house is to reproduce the one which existed in its place? It does not seem so.
>
> First, whatever may be the permanence of rural forms, we have seen that they do not escape the transformations of modern life. If man is obliged to adjust his existence to natural conditions, he also reacts upon them and transforms them in his turn. Navigable ways, then the railroads, have caused in the nineteenth century, new kinds of materials of construction to penetrate everywhere: tiling in place of thatch, brick instead of mud. Are we, out of respect for the past, going to maintain mediocre materials abandoned in the present day, and, to safeguard the regional character in spite of everything, cover a brick wall with traditional wood? The question cannot be admitted.
>
> The same means of transportation have modified the aspects of rural life and driven toward the large cities the peasant industry closely allied to culture. Are we, through love of the picturesque, going to restore the windowed *atelier* of the weaver of Cambrésis which, for a long time has been nothing more than an empty cellar? On the other hand, agriculture assumes more and more an industrial form through the employment of mechanical methods for tillage, thrashing, and general traction. That is data of which it is fitting to take account in the new planning of the barns, should one have to change their traditional dimensions or the form of their opening.
>
> In a word, the most elementary hygiene condemns certain forms of habitation, and I do not think that it is forbidden, through respect for regionalism, to seek to establish in the disordered accumulation of the Lorraine farm independent circulations and indispensable separations, any more than to approach—without much hope, moreover, of solving it—the very delicate question of the handling of the dung-heaps. One could multiply to infinity such examples.
>
> Still, in taking account of the necessary advances, it is

*The publications from which were made the translations in this article were originally placed at the disposal of the writer through the courtesy of Dr. James Ford, of Harvard University. Some of these publications have now been secured from France for the city-planning collections of the Library of the School of Landscape Architecture at Harvard, where visitors are most welcome to consult them.

†Librarian, School of Landscape Architecture at Harvard University.

‡For reproductions of some of the drawings shown at this Exhibition and the translated text of M. Vaillat's preface to the Catalogue, see the Journal for March, 1917.

important not to alter the ancient and, as it were, historic physiognomy of the peasant-house.

The Present Architectural Situation in France

It was very gratifying to those responsible for the recent competition,* that the regional types evolved were satisfactory both æsthetically and economically. These types included a large-farm group, a small-farm group, a blacksmith's shop, a village inn, a workingman's house, etc., in each of the four regions designated. A committee from the American Red Cross was asked to consider the drawings of the competition with a view to Red Cross coöperation in the propagandizing of the results. The Committee found that the prize drawings not only had charm and regional suitability, but also were practical and economical to construct, and at the same time set examples for better sanitation and agricultural efficiency. It is intended that the suggestion, especially current since the Exhibition of Regional Architecture a year ago, should now be carried out: that models should be made in pasteboard, attractively colored, and that these should be shown in schoolhouses or townhalls throughout the invaded districts, as soon as it may be practicable. In this way the inhabitants who are to rebuild may see just what they need in striking and comprehensible form, and thereby be drawn away from the allurements of the large-scale speculative builders who might dot France with an eruption of ugly and monotonous houses.

The evil possibilities of speculation and unintelligent standardized commercial building have been fully realized by the French architects. It is naturally felt that local architects, steeped in the tradition of the region, may produce the most spontaneous results. It is, however, recognized that large-scale building is inevitable, and, indeed, absolutely necessary to encompass the enormous amount of construction that must follow the war. A number of groups of French contractors, engineers, and architects are preparing for such large-scale reconstruction; but it is understood that they will in no case try to supplant local architects, engineers, or contractors, where these are able to act. These groups are already getting in touch with eventual clients and preparing plans against the coming of peace. Local architectural and engineering societies, as well as the great societies centered in Paris, are working on reconstruction problems.

One of the most interesting reports, or rather group of reports, is that prepared by the Société des Architectes Diplômés par le Gouvernement, relating principally to materials of rural reconstructions. Some of the basic recommendations are: the utilization of local materials, and, immediately on the final withdrawal of the enemy, the rehabilitation of local factories and sources of materials as far as possible; the increase and intensification of cement manufacture in France; the prevention of speculation especially in materials needed for various types of cements and concretes; the utilization of colonial forests for the wood supply, and the immediate beginning of securing this; the establishment of stocks of materials needed for rebuilding; further study of economical methods of construction not yet employed in France, and the collection of such data as may be utilized at the proper moment.

The whole question of permanency of materials used in immediate building, as well as the character of such work, has caused much discussion. In a recent book, *La Cité de demain dans les Régions dévastées*, by MM. Auburtin and Blanchard, architects, a selection is given from M. Auburtin's report on materials to the S.A.D.G. This shows so well the broad point of view essential to the solution of these difficult questions that a considerable piece of translation here follows:

> This exposé does not claim to furnish a solution for each problem. Its object is rather to start criticisms to cause the birth of ideas, to incite to the rational organization of the studies to be undertaken, the trials to be made, and to serve as a starting-point for works in which clear-sighted minds and trained competence will take part, works which will give, without the least doubt, the most fortunate results toward the solving of the question of reconstructions, meeting these primary conditions: ease, facility, and rapidity of transportation and preparation, solidity and the strictest economy.
>
> Whatever these results may be, it is certain that they will offer materials very different from the local traditional materials; in consequence, the appearance of the villages will not always be able to recall the local color of the former communities. Does this mean that all search for the æsthetic is to be banished from these studies? It is certain that the employment of new materials, meeting un-

*For reproductions of some of the drawings submitted, see the March, 1918, Journal.

avoidable necessities before everything, does not inevitably imply ugliness. The search for charm and pleasingness in the new constructions, if it is entrusted to competent people, can be successfully exercised, from the moment when the needs peculiar to each region, and the local traditions in so far as they are logical and useful, are judiciously respected.

From this point of view, we do not lack resources; and much talent is ready to set to work to create, with these modest means, agreeable and charming works. The architects of taste and talent, quite fitted to furnish the most appropriate types of each building, whether suited for a habitation, or farming or commercial exploitation, will be able to add, in the interiors as on the façades, the simple discrete note of color to enliven and vary the aspects. And then nature offers its inexhaustible resources to enwrap with verdure and flowers the new dwellings; let us hope that we will know how to take advantage of them, as we see so frequently in England and in Switzerland.

These æsthetic qualities will rise, moreover, as well from the more or less fortunate, more or less picturesque, grouping of the buildings, as from the particular study of each construction. But there arises the question of the grouping of the new constructions. Will these be united on communal lands outside of the former community, or will they be rebuilt, if not on the former sites, at least, in their proximity, each proprietor wishing to construct his dwelling on his own piece of ground? A kind of question evidently impossible to solve at the present time and to treat in a general way.

This question is connected with that of the provisional or the definitive. Those constructions in economical materials, made to last at least ten years, can last forty or fifty years; do they not, then, stand a chance of remaining definitive? It seems premature to wish to express an absolute answer. If the ruin of the former village is complete, and if the grouping of the new habitations is practical and comfortable, perhaps they will remain definitive. On the other hand, when the inhabitants will have received the total amount of their indemnities, when the resumption of active work will have given them back normal revenues, when the revised laying-out of the thoroughfares will have been made and the re-lotting of lands at an end, when the ordinary modes of construction and professional handiwork will be again under normal conditions, many landowners, lodged on communal plots or on their former sites, will wish to reinstall themselves on their property. Will the construction which will have sheltered them become useless? It is to be desired that it will not, for the prosperity of the country having caused the demands of enterprises to increase, these constructions, slightly remodeled, if it is possible, to put them into harmony with the new ones, will be annexes already made for the increased needs.

Moreover, who can say at the present time what the economic situation of these regions will be in ten, fifteen, or twenty years? One has seen districts completely modified after these great upheavals such as wars are, or as a consequence of the unexpected industrial development or of the discovery of underground metals; agricultural countries of indifferent yield have become prosperous metallurgic centers. For this reason, the problem of the future must be reserved, and the possibility of an economic adaptation perhaps very different from that which we have seen thus far, provided against. But there we enter the domain of the unforeseen, and our rôle is already vast enough if we know how to meet the multiple conditions which the present reveals to us.

German Ideas for Rebuilding Belgium and France

While we have been able to follow closely the French and Belgian plans for rebuilding, very little news has come through as to German plans for the reconstruction of these very areas. Two or three passages in French publications occur which throw a strong light on the French and Belgian attitude toward these German schemes.

The following passage occurred in an address of M. Joseph Reinach at one of the Conferences on Regional Architecture:

Commencing with the month of February, 1915—it will soon be two years ago—a German art-critic, writing in the review, *Die Gegenwart*, has been giving advice to the German architects who would have to reconstruct the towns and villages which the German armies had burned down in Belgium and in our country. The principal passage of this manifesto has been reproduced by M. Vaillat in one of his substantial studies on the *Cité Renaissante* which *Le Temps* publishes. It does not appear that M. von Bülow has had the idea of limiting the work of the German architects to the French or Belgian territories which, according to his ambition, would be united to the German empire. His idea is indeed that the populations of all the destroyed cities could not do better than to address themselves, in their own interest, only to architects from beyond the Rhine, and he specifies—I quote—"to Rhenish architects, or those of South Germany, who are better acquainted with and perceive better the necessities of our neighbors of the West (the Belgians and us) than the architects of Northern Germany."

The old-time historian used to say of the conquerors of former days that there where they have made solitude, they call it peace. The barbarians of today are more practical: where they have heaped up ruins and made a desert, they scent business. Of the moral obstacle, the barrier literally physical, henceforth between them and us, they do not yet take account.

There are pieces of impudence of which the mentioning suffices; to strike against them with the lash of anger or of irony would be to do them too much honor. Similarly it is superfluous to say that, even if we count on reclaiming from conquered Germany the reconstruction at her expense of the towns and villages which she has made into rubbish heaps, we exclude, in advance, all imitation of these architects of Munich and others whose æsthetic sense is equally an offense to good taste and to good sense. Reconstruction in their manner would cause to be regretted the tragic beauty of the ruins.

However, I have not unburied this Germanic impertinence for the mere satisfaction of pointing it out, but rather

for this reason that it is going to lead us by the most direct road to the just solution of the problem imposed by German devastation upon our ravaged countryside. It will not be sufficient to reconstruct these destroyed villages; they will have to be reconstructed in the French style, and also, according to the rhythm and style of each of the ravaged districts.

Is it, or is it not, under influences, German especially, that we have seen in the years preceding the war, a certain number of artists, who were not architects only, turn aside toward the singularities—to employ the most moderate expression—of this *modern style;* which was neither modern, nor, above all, a style? Courtesy for importations from across the Rhine has had something to do with it; but one must see in it particularly the passing misunderstanding of one of the most certain and most ancient principles of art. The truth of it appears nowhere more evident than in architecture. This is it, such as it has long since been discerned by unerring taste for fine things and by history:—a style is not invented; it is not manufactured out of whole cloth; it does not spring up in the night like a mushroom; but it is only one of the stages of an evolution which began at the birth of human civilizations and will end only with them.

The next account is taken from a report on Belgian Reconstruction by M. Patris, the Belgian architect, who has taken keen interest in the study of English town-planning and, in 1916, began at Paris a school to give technical training for service in the work of reconstruction. This report was published in the book of MM. Auburtin and Blanchard, previously referred to.

At a summons of the German authority stationed in Belgium, German, Austrian, and even Swiss architects have freely bestowed their attention upon the reparation of the damages committed in occupied Belgium.

The 28th and 29th of August, 1915, a war congress for the maintenance of the monuments and the restoration of the towns was held at Brussels, under the protectorate of Governor General von Bissing, and in the presence of Duke Johann Georg of Saxony.

We have had the pleasure of having before us the minutes of the closed meeting of the 29th of August, which sums up, to such a degree that they seem grossly ironical, the benevolent intentions of the participants of the Congress toward Belgium and the Belgian architects. We shall not argue about the eventual efficacy of these resolutions.

But it is interesting to summarize here the conclusions of this discussion, presided over by Karl Rehorst, Architect-Counsellor attached to the General Government of Belgium, for the reconstruction of the towns. This is what thay are:

(1) Edifices of historic or artistic value, partially or totally damaged, will be restored in the original style.

(2) Public or private buildings, of historic or artistic value, but of too great antiquity, and which shall be entirely destroyed or injured in their vital structure, will not be in any case reconstructed on their former lines.

(3) All the new constructions, replacing the former ones destroyed and not restored, must be of a suitable architecture, indicate through their architect the period in which they have been erected, and conform as much as possible to the character of the place.

(4) As a matter of principle, one must refrain from *dégagements.*

These conclusions were unsuccessful in rallying the German architects, the more so as they revived old quarrels. To find a basis of understanding, Baurat Stübben summoned the league of German architects, and the Berliner Architechten Vereinigung in order to call forth a meeting that would bring things to a point. Let us say here that these palavers resulted in the declaration, sincere or not, as to the impossibility of taking away from the Belgian architects the mission of raising up again their ruins according to their aspirations, their faculties, and their national necessities.

Thus the matter rests; but this untimely intervention of professional Germany in a situation whose cruelty can be lessened only by a contribution of reverential and patriotic affection permits us, everything considered, to make a useful discovery. It has revealed to us a curious evolution among some artists who have among their assets so many works whose essential quality consists in being only clever replicas of a past art, scientifically but not artistically, resuscitated.

If they admit the abandoning of ancient structures damaged in their essential parts, this resolution will constitute a formal recantation of the integral restoration such as they practised in their country, where, moreover, it has stirred up for them more than one unpleasant incident. But if, furthermore, they admit that an old edifice can be replaced by a construction representative of our epoch, what is the type of Munich or Weimar art which could decently rig itself up in the local character which would permit it to neighbor fittingly with its architectural antitheses?

The following little item appeared in the *Temps*, of Dec. 15, 1915, under the headline, *Pour la Reconstruction des Villages détruits:*

Under the auspices of the Société des Arts et Métiers and in the presence of representatives of the [German] Government, a preparatory conference took place in Strassburg, December 7, 1915, to discuss the question of the reconstruction of the villages destroyed by the war in Alsace-Lorraine. The Ministerial Councillor Franz has announced the elaboration of a project of a law, which will remain in force after the war and which institutes in each *cercle* consultation offices to direct the works. They will strive, he said, to preserve the local architecture; and there will be centralized in one hand the reconstruction of an entire locality, in order to assure the æsthetic unity of the general effect.

This news item was commented on, in a lively manner, at a conference of the Société des Habitations à bon marché, and the hope was expressed that it would not be under German authority that the destroyed towns of Alsace-

Lorraine would be rebuilt. The centralization of reconstruction in one body is noted as a typically German method. It is one which the French have criticized severely in the garden cities of England and Germany as not making for an indigenousness of expression, and not assuring the variety in unity which is, to the French architects, an especially important consideration in the present situation. Centralized power in rebuilding is foreign not only to the French taste but to the French economic structure, since the land is principally in small holdings and, unless present legislation is radically changed—as the most intelligent city-planners feel is necessary—total communal schemes not voluntary, would be exceedingly difficult. This situation has been held responsible in part for the slow progress of the garden-city movement in France. In the course of the discussion just referred to, M. Dufourmantelle mentioned the recommendation of the Prussian government that the destroyed villages of East Prussia should be rebuilt after the model of the German garden cities. Certainly, if Margarethenhöhe at Essen were the model, the result might be in itself æsthetically satisfying, apart from the question of its regional appropriateness or accordance with local tradition.

National Organization for Reconstruction

In the French plans for a national organization for reconstruction, full recognition has been given to this principle of individuality, both in architectural schemes, as we have seen, and in city-planning proposals. Wherever competent local agencies are able to act, they will be called upon. But it is realized that many little towns and villages, completely ruined, have no local resource to form the nucleus for organizing reconstruction work. For such as these, the necessity for help from some centralized body is patent. A general city-planning law, the *Loi Cornudet*, pending before the war and revised in the light of recent experiences, was passed last year. This law provides for national, departmental, and local commissions, and makes planning a legal prerequisite to reconstruction. Provision is made for the fullest coöperation between the authorities of the communes and the technical experts furnished through the government for commissions where local men are not available, as well as in the case of locally chosen experts, when, of course, such coöperation would be certain. A technical procedure along scientific city-planning lines is prescribed in the law. Until recently there have been several official governmental agencies charged with reconstruction and rehabilitation plans in one aspect or another, with an unfortunate lack of coördination. Now, however, there has been a unification of these official activities in the *Office de Reconstruction* under the Ministère du Blocus et des Régions libérées. All civil repairing or rebuilding work is to be under charge of this *Office*. So far there has been temporary governmental reconstruction only, except in the case of eight or nine villages in the territory once liberated, but now, it is to be feared, in the region again devastated by the recent German advance. In these villages, work was done through coöperative societies, one architect and one contractor handling all the work.

Those who have an adequate and successful reconstruction most dearly at heart realize how little can be done at the present time, when men, materials, and transportation facilities are needed to the uttermost for winning the war. What amounts to relief work is almost all that can be hoped for in the way of an immediate physical manifestation. But, like the Belgians who, with only a strip of their country remaining, have passed a compulsory city-planning law and are working for a national plan, the French are preparing for peace by their legislation, by their coördination of the various forces concerned in reconstruction, and by their plans for popular education through which French hopes for enlightened rebuilding may well be brought to pass.

The Circean Shadow.* II

By RICHARD WALLACE TUDOR

IN THE preceding chapter we sought to demonstrate two things: first, the development of class consciousness by introducing the student to the region of architectural thought through forms expressive of anti-democratic traditions; second, the narrowing of his concept of vocational interests and activities by an exaggerated emphasis at the outset upon the values assigned to form and proportion—and their expression in design.

What develops during the next step? How shall we appraise the process? Have we a standard by which to appraise? If so, what *is* our standard? If there is a standard, what *is* its primary interest? Is that interest represented by what we discuss in convention? Is it the design and construction of individual buildings or groups of related buildings with a bit of entourage? Is our central interest so expressed?

Or, are we interested in the social and physical organization of our entire environment? Is that our central interest? Unhesitatingly I say, No! It is not, and with equal emphasis I assert that we must make it our central interest; for, unless we start with well-organized town plans and a broad framework which establishes the masses of our buildings, we shall continue to render more chaotic the already sadly bungled mass. Thus, our circle of professional activities will grow smaller and smaller, notwithstanding our educational propaganda: we shall end by becoming structural decorators—nothing more. That is the fate which now stares us in the face!

The selection of a central interest is the primary consideration with which we must deal. We cannot even discuss the subject of education until we have made that choice. To me it seems obvious beyond any doubt or question that if education is to contribute to our growth and advancement, our central interest must be made the central theme of our educational effort. It must be made vivid upon the student's introduction to his work; it must be made the axis about which his interest and his inquisitiveness revolve *throughout* the entire period of his educational experience—and by no means does that experience end with his graduation from the school. Let us also bear clearly in mind that society is not concerned whether we become the exponents of that central interest which looks to the amelioration of our present physical environment—the replacement of chaos, disorder and ugliness with order and beauty—the creation of a more just and a more sane community life. Society will follow the leaders who can point the real way. In the end, it will not choose the pretender, but the tried and proven leader!

But our vital concern at the moment is the education of the architect. Looking backward, we may well ask what central interest do we at present find expressed in the work of our schools?

In our schools the theory of design serves as a focus of the student's interest. What central interest is revealed by our manner of teaching design? The student scrapes acquaintance with a few classic forms (we call these forms the "alphabet"). These he is taught to "indicate" graphically. As soon as he has acquired some technical skill, he is given a "problem." The problem *suggests* a situation in life (though generally remote), and his task is to assemble his acquired forms or "motives" (acquired without the slightest degree of inquisitiveness on his part) into what is termed a composition. This is finally "judged" according to a set of artificial academic standards. As he acquires more skill or dexterity, larger problems are *presented* to him, and he skips from one little circle of *represented* human interest (expressed to him through a printed program) to another, "solving," statically, problem after problem with never a real opportunity to check his effort against actual situations in the dynamic world about him—satisfied when he gets his mention or his prize.

How Does the Student Think?

But in education *thinking* is tremendously important. How does the student think? What are our methods of inducing thought? With what sort of thought-provoking subject matter does the student deal?

*Continued from the last number.

What should be revealed as regards thinking? Since the essentials of method are identical with the essentials of reflection, we should find, "first, that the pupil have a genuine situation of experience—that there be a continuous activity in which he is interested for its own sake; secondly, that a genuine problem develop within this situation as a stimulus to thought; third, that he possess the information and make the observations needed to deal with it; fourth, that suggested solutions occur to him which he shall be responsible for developing in an orderly way; fifth, that he have opportunity and occasion to test his ideas by application, to make their meaning clear, and to discover for himself their validity."

Do the problems in design, as presented, *represent genuine situations in experience?* What about the first problems—the tombs, temples, mausoleums, colonnades, pergolas, triumphal arches—do these problems so qualify? Education should be a growth, a development, an expanding of the mental processes: it is not like packing a trunk. The first problems, and most of the later ones, represent spheres of interest which are utterly foreign to the experiences of the student; they represent situations which might as well be staged in China.

Recall to mind the confusion, the foggy uncertainty, the utter lack of aim associated with the first effort in design. How were these first "problems" organized? Did judgment, based upon experience, have any part in selecting the arrangements?

While problems of this sort develop a certain kind of technical ability, they do not stimulate thinking. The reason for this is simple indeed: the student does not possess the information nor the capacities to make the observations needed to deal with such problems.

Providing the student with a knowledge of architectural forms and motives is a phase of the educational problem. We must not confuse this phase with that which induces clear, responsible thinking. The fundamental error we have committed is that we have substituted methods based upon acquisitiveness and not upon inquisitiveness. We load the student up with his ancestors' baggage, and we help him arrange it as though he were going to travel in their world. What we should do is to assist him in *thinking* his way out of the passive, receptive attitude in which he enters the school into an inquisitive, interpretative attitude of thinking in terms of form. With what mental baggage shall he provide himself on his journey into a new world—a living world—a world restless with the eternal pursuit of order and ceaselessly in pursuit of the leader who can show the way?

When do we give the student an opportunity or occasion to test *his* ideas by application, to make their meaning clear, and to discover *for himself* their validity? Broadly speaking—never! Programs are written for him; he never organizes the broad outlines of the problem by an interpretative study of situations in the field of reality. The criticisms he receives are in the main directions—values relating to what he does are always assigned by others, not by himself.

There is a formality termed a "judgment" and a "public criticism" of his design; this is the test—the only test—the conclusive test. This is pure unadulterated stupidity! The student (the future architect) is actually discouraged from checking his ideas in the field of reality, for the judgment, the criticism, the imposed conclusive academic standards of appraisal passed upon his work are final. (He must obtain his marks to win his degree.) He dare not think counter to the court of last resort—that would be academic treason.

The Method of Teaching

What should be revealed as regards *method?* "Expressed in terms of the attitude of the individual, the traits of good method are straightforwardness, flexible intellectual interest or open-minded will to learn, integrity of purpose, and acceptance of responsibility for the consequences of one's activity, including thought." What is revealed in our present-day architectural schools? At the very outset, instead of opening the student's mind by inductive methods to the social significance of architecture, to the very broadest concept of the functions which it is the privilege and the duty of the profession to perform, we present him with a few forms. These forms are expressive of situations having no immediate personal interest and relating to conditions in which the student has had little or no personal experience.

He questions the value of the orders—we suppress his inquisitiveness by evasive answers.

He sees little value to be derived from "solving" his first problems. He is told they are exercises in composition and proportion. Many of the problems are mere tasks. In the proportion that he questions does he acquire a "permanent tendency to fumble, to gaze about aimlessly, to look about for some clue of action besides that which the subject matter supplies. More and more he becomes dependent upon suggestions, until he utterly lacks that sureness of attack which is characteristic of the person who has gained his store of knowledge through experience in dealing with actual situations.

Instead of requiring that the student examine a situation for himself in order that he may form his own ideas as to the terms of the program which would really illuminate it, and, in consequence, direct and guide his choice of forms used to express it in terms of architecture, instead of requiring this, we provide him with a sort of formula, a set of rules, whereby he may more accurately guess what he should emphasize in order to produce a result which would be deemed "in character." In the graphic presentation of the plan we encourage the use of a great variety of standard "indications," lines, forms, points, silhouettes, which are not only quite meaningless but which effectively suppress any desire on his part really to interpret his own conception of reality.

The result of these standards and the uniformity of procedure in attacking all sorts of problems is to suppress effectively any tendency of the student to approach the solution of his problem in a state of open-mindedness.

Our "problems" are presented as situations to be dealt with without question. As an aid in solving them, we bid the student accept a great variety of forms, motives, arrangements as actual solutions of his problem. The fact that these "solutions" from which he draws his inspiration may fail so to qualify apparently does not matter.

But why do we persist in keeping students in the dark regarding real situations? Why do we cling like grim death to our paper programs? We say that the complex situations in real life would confuse him. He must be protected lest he overemphasize details.

We prefer that he have as a program an imaginary situation: we do not want him to check his ideas in the workaday world. As a decorator he becomes exceedingly clever: he can design a Chinese pagoda upon short notice.

But by such a process he loses his responsibility of judgment. Situations in real life appear as situations in another world—the old world into which we have directed his educational journey.

But how may the student obtain a responsibility of judgment? How shall we help him to gain a knowledge which he can apply, not only to the best solution of a building problem, but toward the solution of the infinitely greater problem of communal development in all its aspects? Shall we try to do these things by setting him the task of solving puzzles in design? That is the theory we have pursued. Do we not now see that it is not the way? That this can only be done in one way—through experience in dealing with actual situations in real life?

The Nature of Subject Matter

What do our architectural schools offer in the way of subject matter? Consider this suggestion: "The scheme of a curriculum must take account of the adaptation of studies to the needs of the existing community life; it must select with the intention of improving the life we live in common so that the future shall be better than the past. Moreover, the curriculum must be planned with reference to placing essentials first, and refinements second. The things which are socially most fundamental, that is, which have to do with the experiences in which the widest groups share, are the essentials. The things which represent the needs of specialized groups and technical pursuits are secondary. There is truth in the saying that education must first be human and only after that professional. But those who utter the saying frequently have in mind in the term human only a highly specialized class: the class of learned men who preserve the classic traditions of the past. They forget that material is humanized in the degree in which it connects with the common interests of men as men." Do we agree with this suggestion? Hands up! Of course we agree—in theory. But what about practice? What about actualities in our schools? Do they reveal any such concept of education? If we judge honestly there can be but one answer. They do not. They deal exclusively with the needs (desires) of special groups. To these they

cater. Do they deal with things which are socially most fundamental? They do not.

The architectural ideal set up in the school is a false ideal. The subject matter consists, in the main, of situations (presented, not examined) relating exclusively to the needs and desires of a small group within the state. When the subject matter relates to collective interests, as, for example, a problem in town-planning, we completely ignore the fundamental issues involved. Unless our schools can take hold of such problems in a really fundamental way (which will be discussed in a later number) the world which architecture should serve, might conceivably be the gainer if the schools closed their doors and retired from the field.

It is our superficial treatment of fundamental, social, and economic questions which creates the attitude so common in the profession that all that is required to elevate humanity is to deposit over the surface of things a little "fine art" and to shout about the act in the press.

But this is about a theory of education. What of results? What is the attitude of the architect? How does the architect react when confronted with the thousand and one obstacles of present-day practice—the stupid conditions imposed by clients, by laws, by low standards of taste, by economic fallacies in the use of property, by an independent governmental administration? Speaking broadly—speaking of the entire profession—the architect reacts exactly as he was taught to react in the school. He accepts the conditions, and he attempts to envelop the utterly absurd situations in modern life with a pleasing architectural envelope.

He never developed nor organized a program in the school: why should he do so in practice?

(To be continued.)

Unity of the Profession*

PROFESSOR F. M. SIMPSON [*F.*]: In advancing a plea for unity amongst architects, I am well aware that I am venturing on dangerous ground, and possibly laying myself open to the rebuke that "fools rush in where angels fear to tread." I understand it was resolved some time back that controversial matters should be held in abeyance until the end of the war, the reason given being that it would be unfair to the men serving at the front to come to a decision in their absence. With the principle of that resolution I heartily sympathize. I should be the last person to suggest any action of which they might disapprove. But for them, and others like them, we should not be meeting here to-day. But I confess I doubt if these men—who are now engaged on an infinitely bigger matter than even the future of architecture in this country—when they return from the trenches, the craters, dugouts, and the mud, will want to plunge into the turmoil of what will appear to them but petty politics in comparison with the great decisions for which they have been fighting. I venture to think that if nothing is done now to advance these matters a step nearer solution, the remark of the majority on their return will be "What! still at the same old job! haven't you settled that yet?"

There can be no diversity of opinion amongst architects as to the urgent need for unity in our profession. We have suffered from the lack of it for a hundred years or more. For unity means strength, and strength compels respect. If we had been united and strong at the beginning of the war, the architectural profession would not have been so completely ignored as, unfortunately for the country and ourselves, it has been. Our President referred to this in his opening address last month; and the point was also exceedingly well put, although tardily, by Mr. Ernest Newton, Sir Aston Webb, and other members of the deputation which waited on Mr. Neville Chamberlain last February. I will only add one remark. Never before in the history of the world, so far as I am aware, has a profession been virtually forbidden to practise by Act of Parliament. No doubt the prohibition was necessary. It was accepted as such; and to the eternal credit of architects throughout the country there has been no grumbling. Our only grievance, and I think a substantial one, is that when the Government stopped all private building enterprise, they gave public building work and public posts and appointments, which by right of training and fitness belong to architects, to members of other professions, and to men of no profession at all.

It is no good crying over spilt milk; but spilt milk has a moral. The need for unity in the profession does not end with the conclusion of the war. It starts again, and with redoubled force, at the Declaration of Peace. Then, as never before, it is imperative that we should be united and strong. We must be in a position to make our wants known, our influence felt, and our aims and aspirations respected. We must be able to approach public bodies, and speak to them with undivided voice, on all matters affecting our calling. We must be able to hold our own with members of other professions, and to stamp out the jacks-of-all-trades, and the tradesmen, who now too often try to usurp our functions, and angle for work for which, both by their lack of training and artistic ineptitude,

*Briefed from the Journal of the R. I. B. A.

NOTE.—A large part of this discussion related to questions affecting professional unity and concerned itself with the special interests of the R.I.B.A., the Society of Architects, and the Architectural Association. We have also omitted those portions which dealt at length with the issue of registration.—EDITOR.

they are entirely unfitted. Above all, we must uphold the dignity of the Art of Civil Architecture, for the advancement of which our Institute was founded and received its Charter.

The last should be our principal aim. We are not out merely to profit the Institute, or fill our own pockets; although if both result, so much the better. Our business in the first place is to consider what is best for *Architecture;* what steps can be taken and what modifications made in our policy and constitution which, whilst inflicting no injury on anyone now—or at all events a minimum amount only—will produce the most beneficial effect in the future. We must look ahead—twenty, thirty, even fifty years hence. . . .

In the proposed Charter the Institute asks for the right to register practically all architects in Great Britain. The principle is admitted that all such men, good or indifferent, are to receive an official stamp. This stamp may, or may not, be of some pecuniary value to them in the exercise of their profession; but I submit that it will have no effect on the advancement of architecture, and do nothing whatsoever in the direction of unification. There will still remain the twofold divisions—architects who are members of the Institute and architects who are not. The latter, having their stamp, are unlikely to apply for membership, will never take any interest in our or any other architectural body, nor trouble to use any influence they may possess in furthering the advancement of the profession as a whole.

The suggestion I venture to put before you is that the Institute should invite all architects, . . . to become members of our body.

If that invitation be generally accepted, it will doubtless mean some increase in the number of Fellows and Associates, but the majority of new men would probably become Licentiates. . . .

Some modification of the restrictions previously imposed on Licentiates would doubtless be necessary if that class be greatly increased. . . .

These, however, are details. The main questions are: How would a large influx of new members help toward unity and the advancement of architecture? And what safeguard is necessary to ensure that architecture shall advance? . . .

Outside architects at the present time benefit undoubtedly by action taken by the Institute. An appeal might be made to them to join on two grounds. First, that it is not fair they should benefit from results toward which they subscribe neither time nor money; and, secondly, that adhesion would be not only to their personal advantage, but also eventually, if not immediately, contribute toward the advancement of the art in which presumably they are interested. . . .

The other question I asked was, if unity is accomplished, what safeguard is necessary to ensure that architecture will advance? The only safeguard is education. The greatest mistake, in my opinion, the Institute ever made was putting the cart before the horse five-and-twenty years ago, and establishing a scheme of examinations when education —outside such as could be obtained in architects' offices— was almost non-existent. We have advanced a little since then, but our methods are still chaotic and too much subject to individual caprice. A good deal still remains to be done in the way of settling fundamentals before the education of architects can be said to rest on a sound and satisfactory basis. This, however, should not be difficult to arrange, if, as I suggested last year, the heads of architectural schools were to meet in conference, and the Board of Architectural Education consider the matter fully and seriously.

A course of training in a School of Architecture should, I submit, be compulsory for all students. At present it is only optional. I have already advocated this, and intend to urge it again when opportunity offers. It is useless to expect unity amongst architects so long as there is variance as regards the essentials of architectural education; and some students receive no training at all except what they obtain in an architect's office.

The great war in which we are engaged will, it is hoped, eventually widen the horizon of humanity. It has already effected many and wonderful changes. It has proved the value of and absolute necessity for unity amongst allied nations, and how lack of unity spells disaster. It has upset all preconceived notions as to scale, not only in military matters and finance, but in all other subjects. Solutions which before the war would have been regarded as erring on the side of excessive liberality are already condemned as utterly inadequate. Sociological and educational outlooks have entirely altered their boundaries. The principle that all difficulties should be met squarely, and settled, if possible, on broad, comprehensive, far-sighted and generous lines, is becoming more and more acknowledged. In that spirit we should approach our difficulties. I have ventured on some suggestions; I would welcome others bolder and more sweeping. We want to end our old controversies once and for all, in the same way as we are resolved to end this war by a peace that shall be permanent. Neither a great war nor our own smaller squabbles must be allowed to crop up again twenty years hence. An absolute millennium may be an impossibility; but if anything in the nature of a millennium can ever be reached, now is the time—following the all-round upheaval caused by a great Armageddon.

THE CHAIRMAN, PROF. W. R. LETHABY [*F.*]: I am in entire general sympathy with Professor Simpson's interesting Paper. The matter is of importance from the point of view of solidity, and also from the economical aspect. We must draw together with the aim of getting something done. I have long thought that our towns and our country cottages are not the best in the world, and I am not content with anything less than leading in the world. In these things, unless you aim at leading, you do not do much. We may not ultimately come out at the top of the world, but it is essential to aim at it. I take it that "architecture" should mean better towns, better cottages, better public-houses, better stations, better everything of that sort, and to get them we have all to work together.

MR. ARTHUR KEEN [*F.*] sent the following communication: Professor Simpson's proposals are far-reaching and in my judgment generally sound, but I do not think they must be accepted too literally. The mere bringing into the Institute of all who might wish or might be induced to enter it might result not in added strength but in a con-

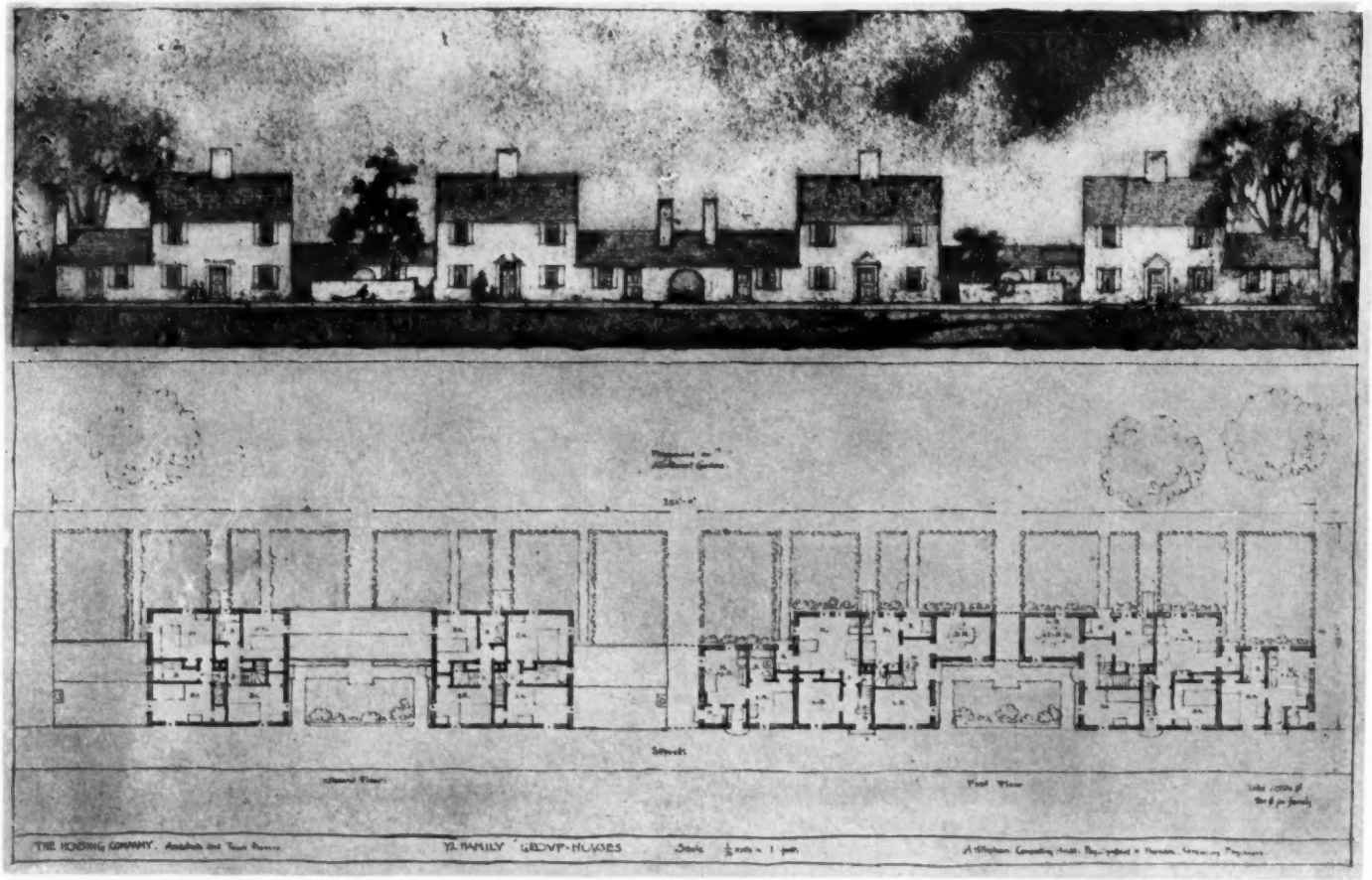
siderable dilution of its present strength. The whole thing must be looked at in the light of the standard of attainment and position that is required for membership; and while I feel that all possible, or at least reasonable, facilities for admission should be given they should be used with due safeguards to prevent the admission of those who are not sufficiently well qualified.

MR. A. R. JEMMETT [*F.*]: I would like to put this point of view forward: that, to my mind, the great trouble about unity is largely due to lack of unity of idea, to start with. You want a philosophic or theoretical idea of what an architect is, and of what our interests are, for which we can all strive, and then you can acquire practical unity. Unity of action is the outcome of unity of thought. At present I think our interests or positions are very diversified, the interests of some architects are very different and seem almost opposed to those of others. Some specialise on designing beautiful country houses and deal only with delightfully country people; but other architects in the provinces or the City of London have their time taken up with pettifogging details—surveying, party-walls, and the business aspect of it. You could go on and pick out half a dozen classes of architects, and you find that their interests do not coincide. Therefore, while we are at loggerheads on fundamental principles and ideas, we are bound to have difficulties in getting practical unity. My view is that we ought, first of all, to try to make up our minds what an architect is, what his proper duties are, where he is doing his own fundamental essential work, and where he is doing work which is as well or better done by other professions. Until we do that, and so obtain a more definite and complete idea of what an architect's best interests are and should be, I do not think we shall get much further forward. I hope the meeting will bear that point in mind. The absolute necessity of unity is so obvious that it is not necessary to enlarge upon it. But I think that in the future we shall get even more than the unity of the profession in England. After the war, of course, nobody knows what will happen, but we can safely say we shall not be where we were before. And the difference seems likely to be on the side of Internationalism. I can see a confederation of all the architects in the universe coming along. Mr. Sidney Webb talked to us about architecture as a public service of England. I would look upon architecture as human service, as a service for all humanity. And it is for us to enquire how we can best render that service. It will be for an authority in public administration, like Mr. Sidney Webb, to say where we are wanted. Before long we shall have to have these conferences between architects on an international scale to investigate and determine how architecture may be best placed at the service of humanity. But before we can start properly we must have our own clear ideas upon unity and what we consider architecture is—before, among architects of different nationalities, we can discuss architecture to any good purpose.

Mr. Wigglesworth has put forward the idea of two societies: one to look after architecture, the other to look after business interests. That was put forward two or three years ago, but was not very favourably received. It is a very good idea, however, for the interests of architects as private individuals very often conflict with the interests of architecture: there is no way out of it. If you follow a liberal art like architecture, follow it whole-heartedly, you often find you are doing so to the detriment of your pocket, your private interests. No society can look after both, and that is our difficulty here. We get cut into two sections. One man comes down full of generosity and wishes to do something for the good of architecture, another comes down to protect his pecuniary interests, and the moment one opens his mouth the other contradicts him, and they go on cancelling one another out. And we shall go on cancelling one another out in this Institute to the end of time. If you get an Architectural Society, as distinct from a Society of Architects, an Architectural Society composed of all the men in the country who are interested in architecture—architects and others—for improving architecture, you will be doing much good. And if you like to have a Trade Union or Guild for the protection of architects from the pecuniary point of view, very well: that is another kettle of fish. The two Societies will sometimes be in flat contradiction, but I think it is better to have flat contradiction between two societies than among the members of one society, because in the latter case we annul one another's efforts, and if the Institute takes no strong action in either direction. . . .

PROF. S. D. ADSHEAD [*F.*]: . . . We have heard a great deal about the welfare aspect of the profession and the architectural aspect. I would point out as a warning that we, as architects, in the eyes of the general public can carry this welfare or interest of the architect—his private interest, his pecuniary interest—a little too far if we are not careful. I am certain I am right in saying that our first interest must be architecture. The other will follow. It is putting the cart before the horse to look after the architect and let architecture take second place. I cannot emphasize that too much.

THE CHAIRMAN: . . . May I now follow on what Professor Adshead told us? I feel that he said something that was idealistic on one side, and yet which was good policy on the other. It is only by getting the public's consent and interest that we can exist. And it is only—though I hate to put it so—by fulfilling, in a high sense, a public function that we can hope at last, and in a large way, to get our remuneration. Too narrow a view of the architect's interest is always cutting away the foundation on which he stands. Our friend Mr. Butler, who spoke so ably, said at one point of his speech that architects did not go into the business for their health, but to earn their living. It is perfectly true; it is good, honest, common English sense, and it is awfully difficult to meet it, for it carries conviction. But yet it must not be said, because it is not wholly true. It would not be a defence in a court of law to say, "I did not do it for public service, I have got to earn my living." The soldier does not follow his vocation "to earn his living"—quite the reverse very often. The clergyman, it is supposed, does not perform his service to earn his living, although he does earn it incidentally. The doctor, too, did not take up his work "for his health": he took it up for other people's health. Architects, too, exist to fulfil a great public function, and that has to be recognized.

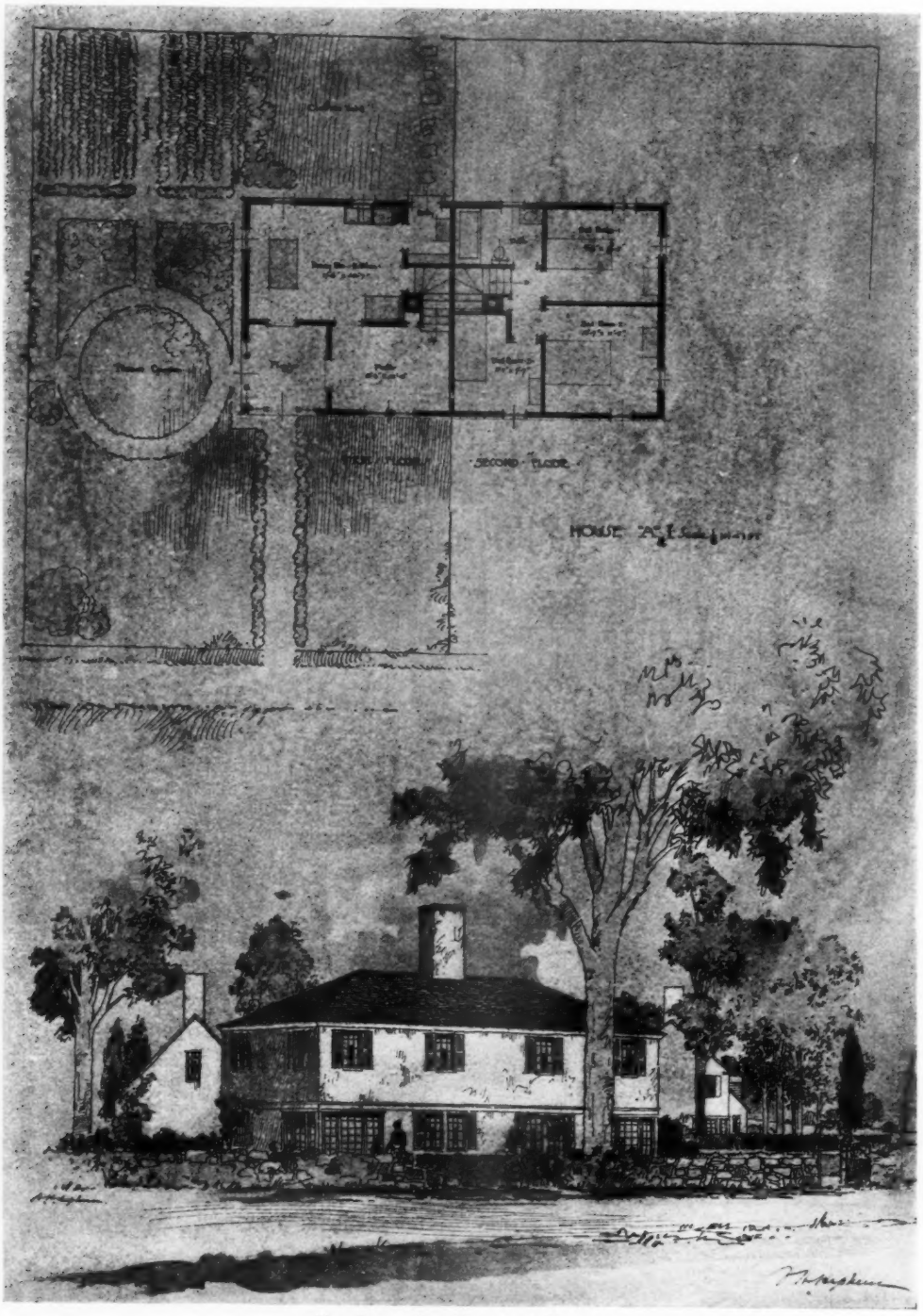


A Twelve-Family Group of Houses

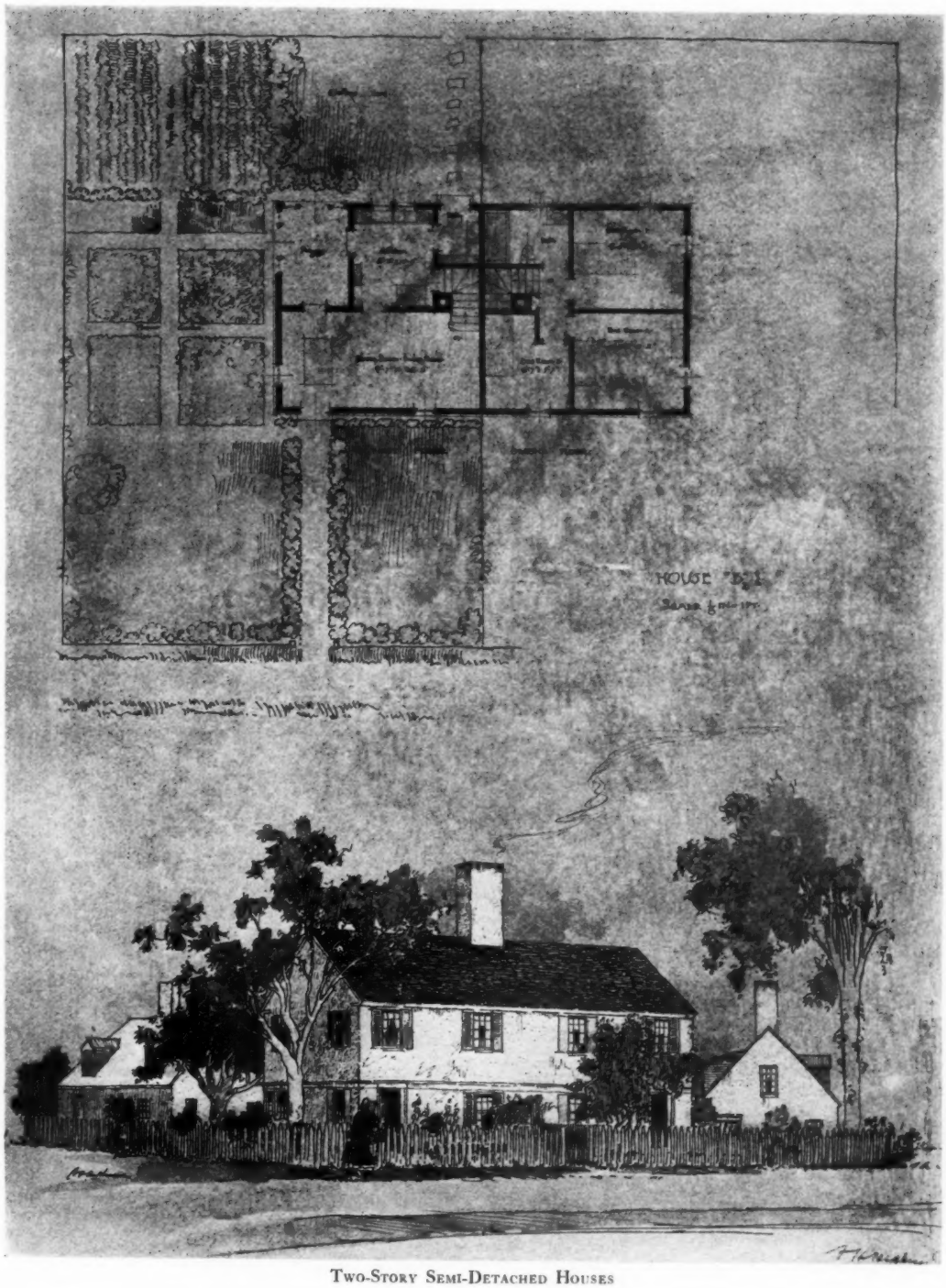
Some Ideas for American Small Houses

Eight Sketches by A. H. Hepburn for the Housing Company, Boston

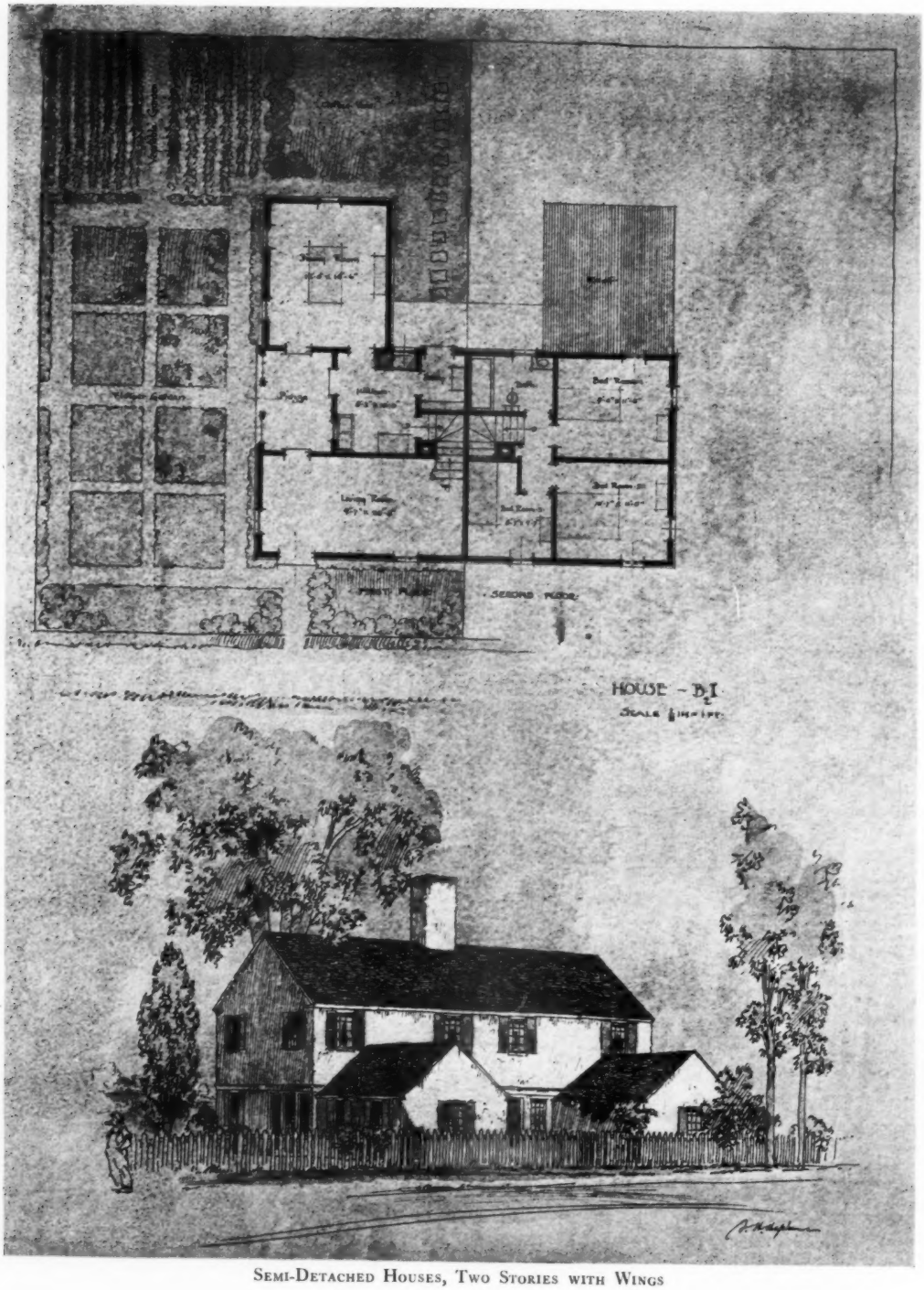
(Pages 175–182)



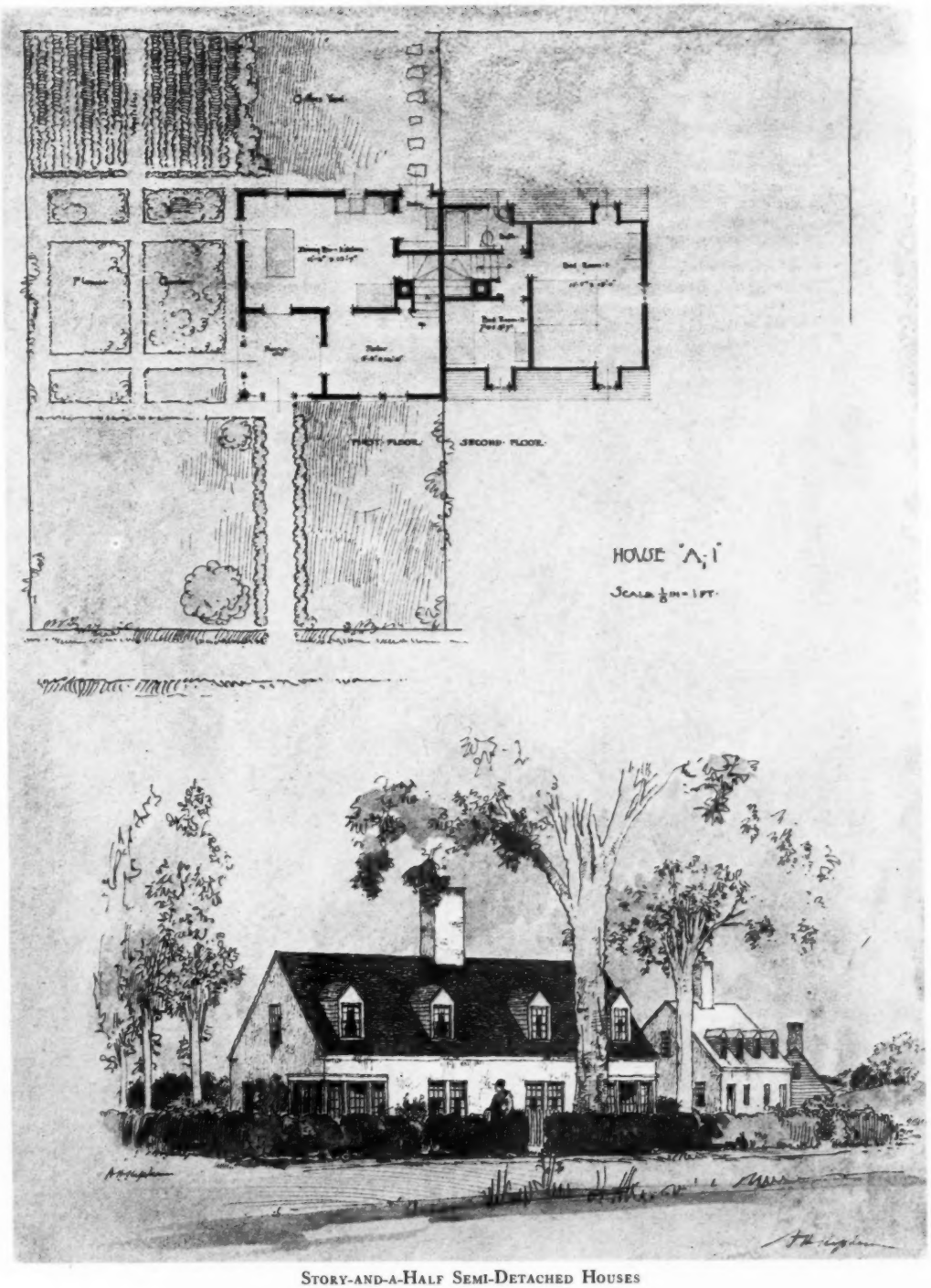
Two-Story Semi-Detached Houses



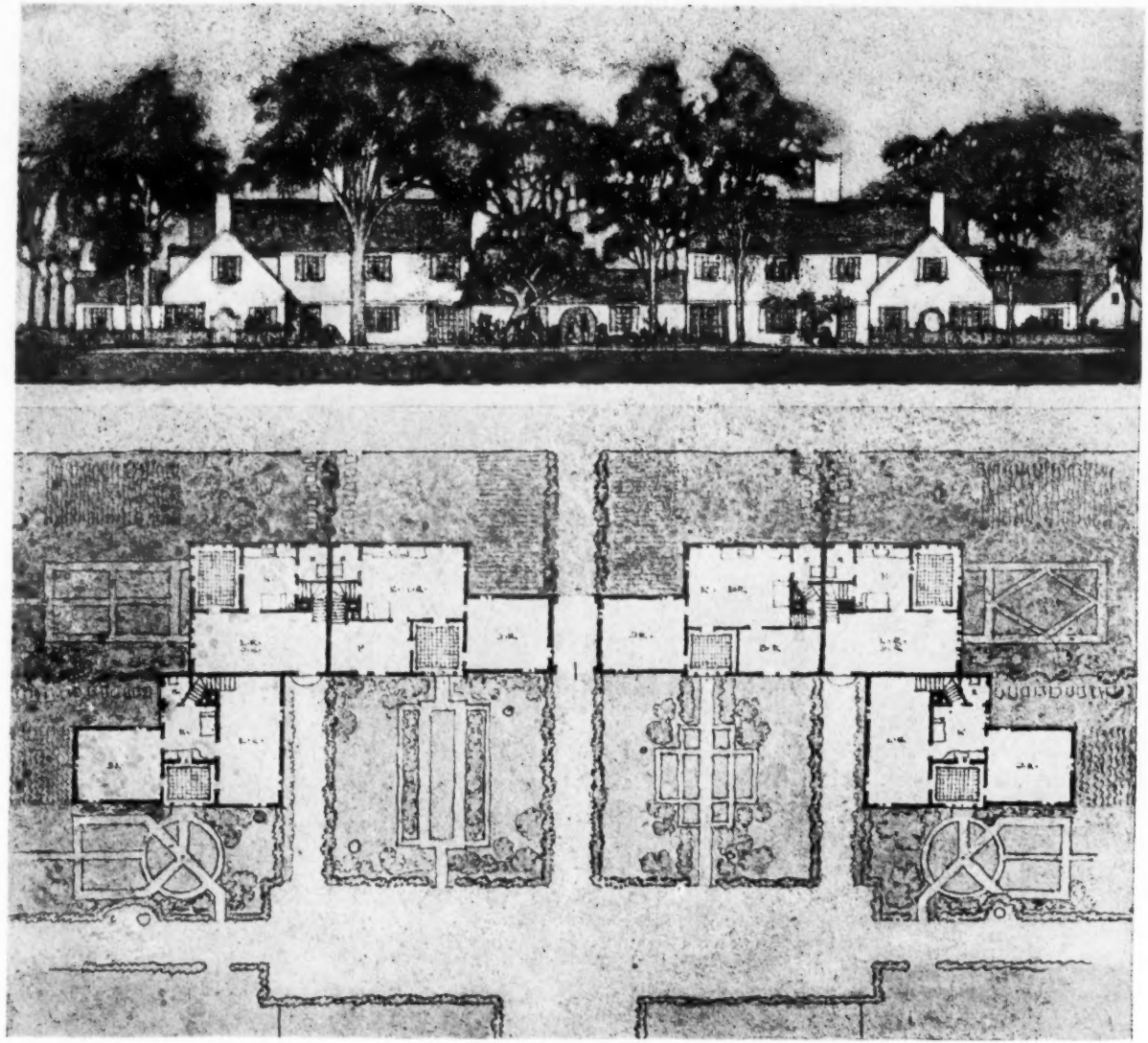
TWO-STORY SEMI-DETACHED HOUSES



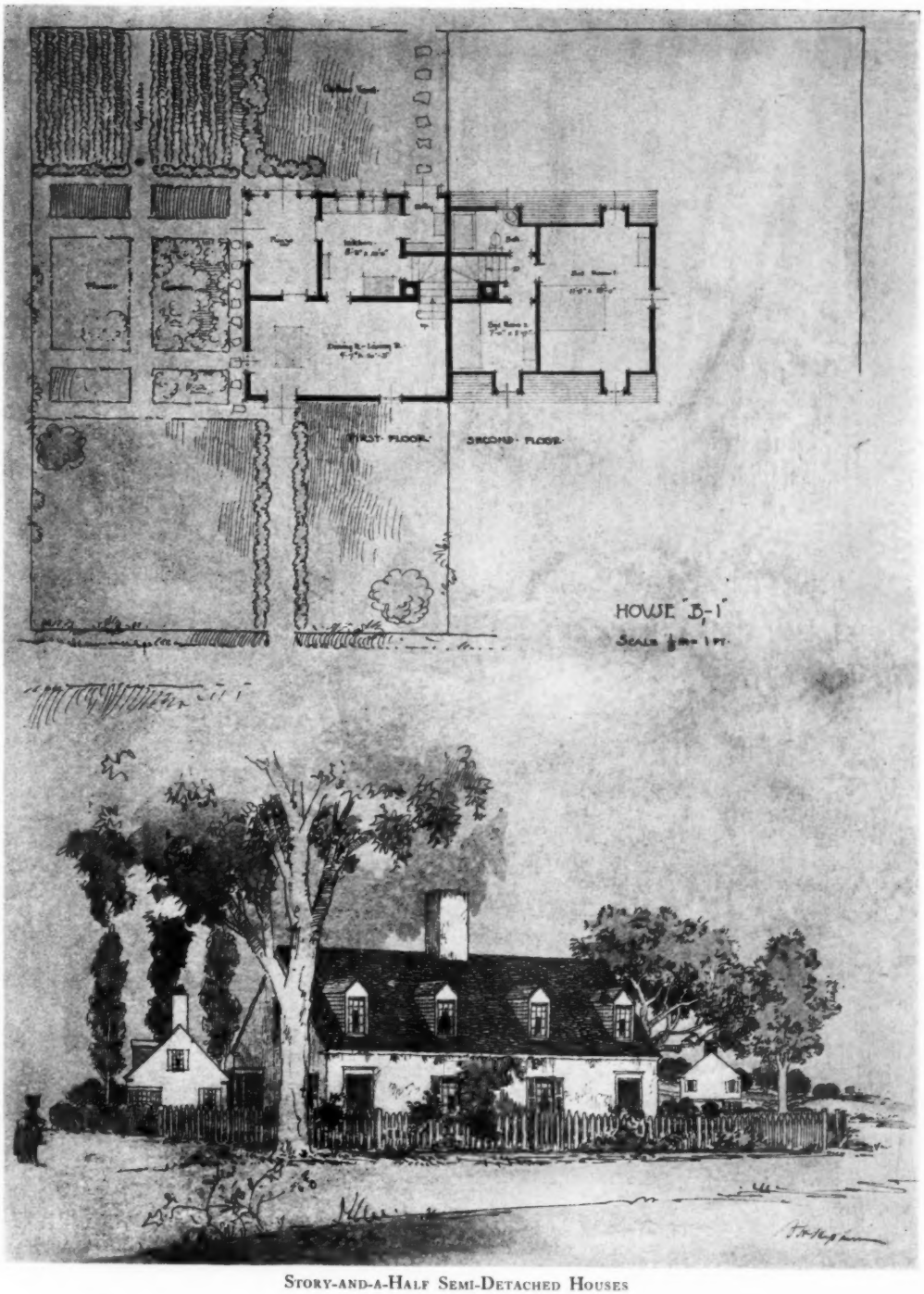
Semi-Detached Houses, Two Stories with Wings



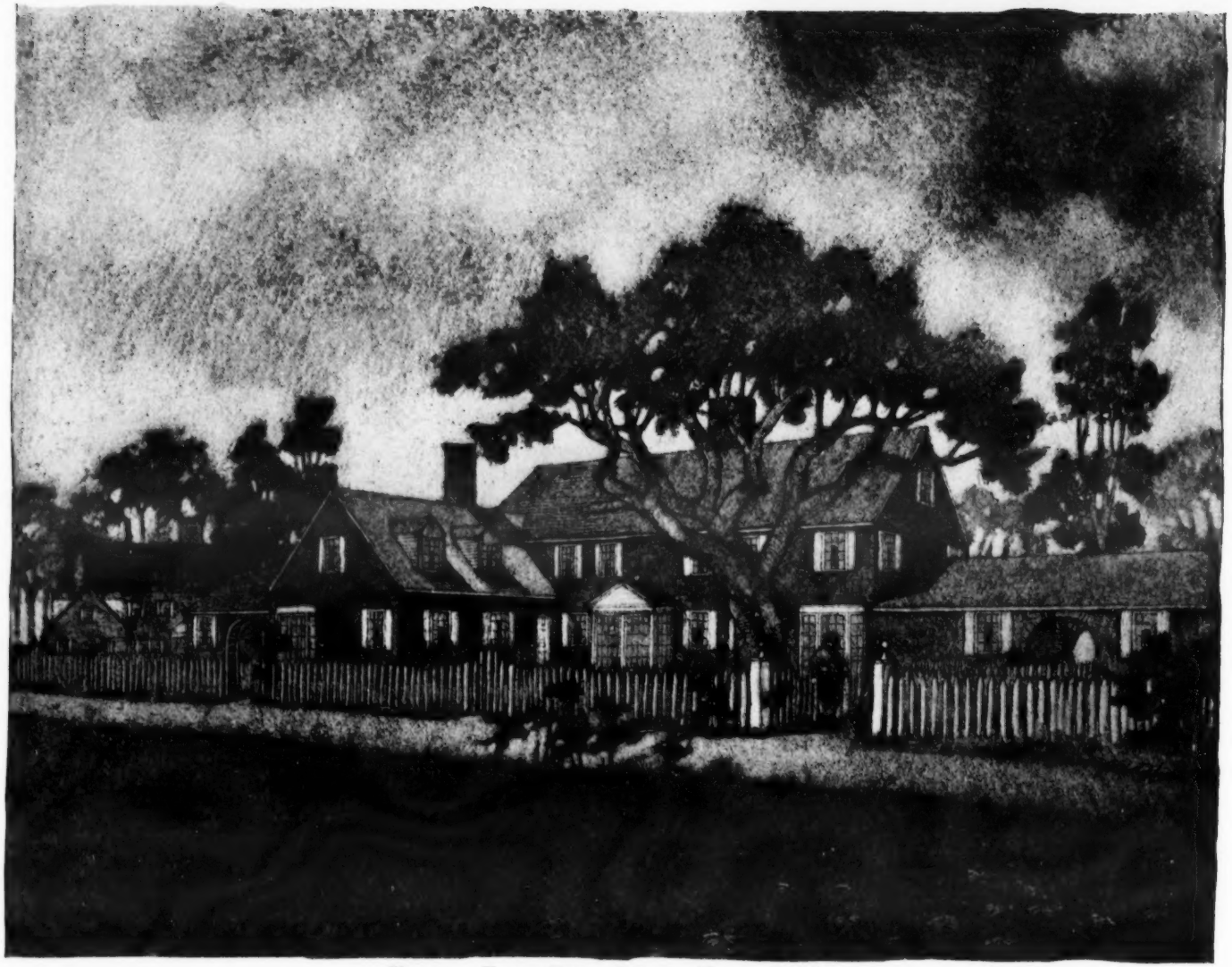
STORY-AND-A-HALF SEMI-DETACHED HOUSES



SIX-FAMILY GROUP OF HOUSES



STORY-AND-A-HALF SEMI-DETACHED HOUSES



HALF OF A TWELVE-FAMILY GROUP OF HOUSES (FLATS)

Co-partnership Housing in England*

By HERBERT S. SWAN
Executive Secretary, Zoning Committee, New York City

CO-PARTNERSHIP housing was inaugurated by the Ealing Tenants, Ltd., in a London suburb in 1901. Since then the number of co-partnership societies has greatly increased. Today there are probably sixty scattered throughout England, Scotland, and Wales. The big cities of Birmingham, Glasgow, Liverpool, and Manchester all have their co-partnership tenants' societies.

A co-partnership tenant society consists of a group of tenant members and outside investors who develop a tract of land with buildings, not in the interest of an absentee landlord, but in the interest of those who are to live in the houses.

The houses are not built for any particular class of people. An endeavor is made to provide different types of houses which will meet the wants, not only of the working class, but of a considerable range of persons.

In a co-partnership society the tenant does not become the owner of the house he lives in. In lieu of acquiring the deed to a particular house and lot, he pays a given amount of capital into the society. In other words, the members of the society collectively own all the real property in the community. As J. S. Nettlefold puts it, "No member can say, 'This house is mine.' They can all say, 'These houses are ours.' "

In a non-partnership society one must either buy a house or rent it. If one rents he is still, even after many years' payment of rent, only a tenant, and the house still belongs to the landlord. If one buys and is later compelled to move, he all too often leaves an unsalable home behind him. In a co-partnership society one can acquire the value of a home without curtailing his mobility, as his investment, if not always transferable without loss, will at least net him as much income as any other safe property.

Co-partnership in housing is an attempt to combine the advantages of both tenancy and ownership of houses. The interests of tenant and investor are harmonized by an equitable use of the profit arising from increased values and the careful use of property.

Co-partnership Housing Distinguished from Garden Cities

Although all the co-partnership developments, so far as town-planning is concerned, follow the lines of a garden city, they are to be sharply distinguished from such communities as Bournville, Port Sunlight, and Letchworth.

Bournville is purely a philanthropic enterprise founded through the generosity of George Cadbury, cocoa manufacturer, and has as its object the amelioration of working-class conditions and the provision of improved dwellings, not only in and around Birmingham, but throughout Great Britain. The leases in Bournville are for a period of ninety-nine years.

Port Sunlight, on the other hand, is an industrial development worked out by Lever Bros., soap manufacturers, along what they call "prosperity sharing" lines, for the housing of their employees. Only persons employed by the company may lease houses. The houses are let, not at commercial rents, but for an amount just sufficient to cover their upkeep.

Letchworth, the first garden city, instead of being owned by the tenants collectively, is held by a private company with a limited dividend. Property is leased for periods of either 99 or 999 years.

Operation of a Co-partnership Society

The method adopted by a co-partnership society in developing its estate is as follows: It first secures suitable building land. This land is carefully planned. The number of houses per acre is strictly limited. Buildings are arranged to ensure not only healthful and cheerful houses but also pleasant surroundings. Substantial houses of a variety of types are built. These houses are let at ordinary rents. Dividends on capital are limited to 5 per cent. Any profits remaining after the payment of current expenses,

*This paper was prepared on behalf of the Committee on New Industrial Towns. Acknowledgments for material used are due to Mr. Thomas Adams, Ottawa, Canada; Mr. John Nolen, Cambridge, Mass.; Mr. Frederick L. Ackerman, New York City, and Mr. Frank Backus Williams, New York City. See further note at end of this article on the Committee on New Industrial Towns and its publications.

interest and amortization charges on mortgages and loans, and dividends on capital are divided among the co-partnership tenants in proportion to the rents paid.

Advantages of Co-partnership Housing

The advantages claimed for co-partnership housing to the tenant are as follows:

1. He gets a house at a rental which, if internal accommodations and external surroundings are compared with what is obtainable at most places, is less than he would have to pay elsewhere for the same accommodations.
2. He secures freedom from loss on his savings should circumstances require him to leave the neighborhood.
3. The capital for building his house is provided at a cheaper rate than it could be obtained on any other system that is commercially sound.
4. Should values go up, he gets the benefit, either by way of a dividend on his rent or by paying a rental which is below the market value.
5. He secures practically all surplus profit after the fixed charges have been met.
6. The benefit of the "unearned increment," if any, accrues to the tenants, and not to a ground landlord who has no interest either in the tenants or the neighborhood.
7. The tenants as a whole can gradually relieve themselves of dependence on outside capital altogether by accumulation of their own savings. By gradual process, therefore, it lies with the tenants to transfer the ownership from non-tenant shareholders who take the main risk to begin with, to tenant shareholders, who, it is hoped, may collectively become the ultimate owners.
8. He can invest at 5 per cent, in the society of which he is a tenant, any savings he finds it possible to make out of his earnings.
9. He gets his house, with a small garden attached, in a neighborhood where there is plenty of fresh air, and the house itself is one with some individuality in which a tenant can take a pride, instead of being an insignificant unit in an interminable row of jerry-built ugliness.
10. He secures a social atmosphere which awakens new interests and creates a collective friendship unknown under the individual system of ownership.

The outside investor benefits by co-partnership housing no less than the tenant. Although capital does not pocket the profits in excess of 5 per cent, any surplus profit above that amount affords just that much more security for the continued payment of the regular dividends on stock or of interest on loans. It is, of course, to the interest of the tenant members, who receive the surplus profits, to make these profits as large as possible by taking care of the property and thus lessening the expenditure on repairs, by helping to find tenants for empty houses, and by punctual payment of rent. The capital invested by the tenants, moreover, furnishes a guarantee fund upon which the society can, if necessary, draw in order to pay arrears of rent. Loss by arrears of rent is practically impossible.

Co-partnership Tenants, Ltd.

The need for propaganda work and cöoperation between different societies led to the formation in 1904 of the Co-partnership Tenants, Ltd., a central organization which some fifteen societies have now joined. In promoting the development of co-partnership societies, the Co-partnership Tenants, Ltd., provides expert advice as to the best methods in obtaining, laying out, and developing estates; assists in raising the necessary capital for its federated societies; and facilitates the pooling of orders where practicable, so that the benefits of wholesale cash dealing in building and other materials are secured. It also inspects all accounts and books

Name of Society	Date of Organization	Area (Acres)	Area of Open Places (Acres)	Number of Houses When Completed	Value of Land and Buildings Jan. 1, 1917	Estimated Cost of Estate When Completed
Ealing Tenants, Ltd., London	1901	62	13	700	$1,281,500	$1,500,000
Anchor Tenants, Ltd., Leicester	1907	48	4	350	169,625	750,000
Manchester Tenants, Ltd.	1908	11	2	136*	281,565	281,565
Fallings Park Garden Suburb Tenants, Ltd., Wolverhampton	1907	6	1	75*	98,500	100,000
Garden City Tenants, Ltd.	1905	39	6¼	323*	493,900	494,000
Derwentwater Tenants, Ltd.	1909	2¼	1¼	27*	33,775	37,500
Liverpool Garden Suburb Tenants, Ltd.	1910	58	8	600	700,000	1,100,000
Sevenoaks Tenants, Ltd.	1904	6	1¾	80*	120,175	120,675
Harborne Tenants, Ltd.	1907	53	3	500*	873,750	875,000
Stoke-on-Trent Tenants, Ltd.	1910	38	3	412	220,000	600,000
Hampstead Tenants, Ltd.	1907	471	47	5,650	724,335	9,185,000
Second Hampstead Tenants, Ltd.	1909				1,473,060	
Hampstead Heath Extension Tenants, Ltd.	1912				841,610	
Oakwood Tenants, Ltd.	1913				793,840	
Rudheath Tenants, Ltd.	1916	10	1½	130	70,000	135,000
Fifteen societies		804¼	91¼	8,983	$8,175,635	$15,178,740

*Houses all built.

of the several associated societies, to ensure a reliable administration of the estates.

The rapidity with which co-partnership housing has grown is shown in the foregoing statistics of the societies federated with the central organization. The data for the societies not associated with Co-partnership Tenants, Ltd., is unfortunately not available.

By January 1, 1917, these fifteen societies had erected a total of 3,702 houses. The character of these developments is suggested to some extent by the number of houses rented at different weekly rents.

Weekly Rent	Number of Houses
Below $1.50	643
From $1.50 and below $2.00	911
From $2.00 and below $2.50	1,011
From $2.50 and below $3.00	564
From $3.00 and below $3.75	236
From $3.75 and below $5.00	109
Over $5.00	228
Total	3,702

Dividends on Rent

Some societies distribute the rent dividend among all the tenants. Other societies distribute it only among the tenant investors. In the latter case, the share of each tenant who is not an investor is carried to the reserve fund. The dividend on rent, like the dividend on capital, is sometimes limited. Thus, Avonmouth limits the amount of the rent dividend to 10 per cent of the rent paid. Permanent tenancy is in some instances encouraged by adjusting the dividend to the aggregate amount of rent paid by the tenants during the period that they have respectively been tenants.

Members in arrears with their subscriptions or instalments enjoy no bonuses. Their rent dividends are forfeited to the reserve fund.

The rent dividend, instead of being paid in cash to the tenant, is generally credited to his account until it equals either the minimum amount of his expected investment or the value of the dwelling he occupies. After a tenant has fulfilled all his obligations to the society as an investor, he receives his rent dividend in cash.

Legal Limitations

Co-partnership tenant societies are registered under the Industrial and Provident Societies Act, 1893, as "public utility societies." This act lays down certain broad fundamental principles that control the policy of all co-partnership societies. In the first place, it prohibits the payment of any interest or dividend in excess of 5 per cent per annum. In the second place, it prevents any individual, whether tenant or not, from holding shares worth more than $1,000. This restriction, however, does not apply to outside societies. One co-partnership society may purchase securities issued by another co-partnership society. There is no limit on the amount of stock that an outside society may hold.

Subject to these two general conditions, each society finances its operations in its own manner. The necessary capital is obtained in a variety of ways. Some societies raise all their funds through the sale of common stock (shares), the issuance of bonds (loan stock), and the flotation of mortgages. Other societies, in addition to issuing bonds and floating mortgages, sell both preferred (either co-partnership or tenants' investment stock) and common stock. Although there is a limit upon the amount of stock which an individual may own, there is no limit upon the amount which he may invest in bonds or mortgages.

Government Loans

A portion of the capital used in developing the co-partnership societies has been secured from the national government.

The first societies found that it required much effort and costly advertising to obtain the necessary capital. These expenses greatly increased the cost of the houses. The Housing and Town Planning Act of 1909, therefore, authorized the Public Works Loans Commissioners to grant loans to public utility societies for housing purposes up to two-thirds of the value of the houses and land, after the houses are built.

Even before the war put a stop to practically all private building, there was considerable agitation to have the per cent of extended government credit increased. As the repayment of the loan would commence in the first year, and as the houses, if properly constructed, would last much longer than the thirty or forty years for which the loans were made, it was claimed that the government's security would improve each year. The risk of loss in making loans to a number of societies scattered all over the country would moreover be less than if the loans were confined to a single town. While houses in a given town might depreciate in value, this would not be so likely to happen in many towns at the same time. The national advantage of having scattered throughout the country building estates laid out in accordance with the latest and best methods of development, and covered with houses that would set a high standard for other builders in the neighborhood, was also stressed, the claim being made that the general standard of building had frequently been raised in the vicinity of tracts developed by co-partnership societies.

The emergency created by the war seems to have been more potent than all these arguments. At any rate, shortly after the outbreak of the war in 1914, the amount of government credit that might be loaned to these societies was increased to 90 per cent.

Before the war, the government money was loaned at an interest rate of 3½ per cent if repaid in thirty years and at 3¾ per cent if repaid in forty years. Since the outbreak of the war, these rates have been increased to 4 and 4½ per cent respectively. The combined interest and sinking fund charge at present is 5.78 per cent if repaid in thirty years, 5.43 per cent if repaid in forty years.

Tenants' Investments

Although non-tenants as well as tenants may become investors in a co-partnership society, the aim is gradually to repay the capital invested from the outside so that the estate may become increasingly the property, if not the sole property, of the tenants. The rules governing the investments that must be made by the tenants to attain

this object are very precise. A few illustrations at this point may not be amiss.

At Avonmouth, for instance, each member of the society, tenant or non-tenant, must hold at least one share of common stock worth $25. In addition to this, every intending tenant must, unless he makes arrangements to the contrary, apply for an amount of preferred (tenants' investment stock) equal to not less than one year's rent of the house he expects to occupy. An amount of preferred stock equal to at least one-sixth of the year's rent must be paid in full on the allotment of the stock and before the commencement of tenancy. Thereafter he must pay for the preferred stock allotted to him, and from time to time to be allotted to him, in such instalments as the management may stipulate when the allotment is made.

To begin with, the two original Hampstead societies obliged the tenant to buy stock. But this requirement was, however, changed in 1910. Since that date each tenant investor has been expected ultimately to purchase bonds (loan stock) to the amount of $250, or two years' rent of the house occupied, whichever is the greater. The amount of bonds that a tenant must take up is subject to modification by the management, but no change can be retrospective.

The Oakwood Tenants permit the lessee to invest in either bonds or in preferred stock, as he may determine. If he invests in bonds, it must be for not less than $250, or a sum equal to two years' rent, whichever is the greater. If he invests in preferred stock, it, too, must be equal to at least two years' rent, but on the payment of this amount he may be required from time to time to apply for additional preferred stock equal to one year's rent, until a sum equal to ten times the rent of the house he first occupied has been reached. If bonds are subscribed for, they must be paid for in full on allotment; if preferred stock, $25 on allotment and $15 a year, or 10 per cent of the yearly rent, whichever is the greater, in monthly instalments.

The Fallings Park Tenants expect every non-tenant member to subscribe for at least $100 worth of stock; every tenant member for at least $250 worth of stock.

This stock need not be subscribed for at once, nor does it have to be fully paid for at the time of allotment. The first $5 worth, it is true, must be paid in cash, but $15 a year, in equal monthly instalments, is all that is required in the way of payment for the first $50 worth of stock taken. When this sum has been fully paid up, the annual amount demanded during the year in equal monthly instalments is reduced to $7.50. Instalments may be paid in anticipation of their becoming due. Fines are imposed on arrears to secure prompt payment of instalments.

Proportion of Stock to Bonds

The proportion of stock issued to bonds has become a very practical question. As stock generally pays a dividend of 5 per cent, and bonds an interest rate varying from 4 per cent to 4½ per cent, it is obvious that the average carrying charge on capital will vary according to the relative amount of stock sold. If much stock is issued, the carrying charge will be comparatively high; if little stock is issued, comparatively low. The tenants, of course, gain by having the interest and dividend charges on capital kept down to the lowest possible figure: the smaller the dividends on invested capital, the more they receive in the way of dividends on rent. One-quarter of 1 per cent more or less on capital may in some instances mean all the difference between no dividend at all or one of 10 per cent on rent. Every increase in the capital charges, no matter how slight, makes serious inroads upon the rent dividends.

The following statistics show the amount of capital raised from different sources by three of the co-partnership tenant societies:

The Oakwood Tenants, Ltd., had assets on December 31, 1916, valued at approximately $860,000. Of this amount about $105,000 was represented by common stock, $36,000 by preferred stock, $178,000 by bonds, and $541,000 by mortgages, unsecured loans, reserve funds and other items.

The Hampstead Tenants, Ltd., had assets on December 31, 1916, valued at about $760,000. Of this amount approximately $133,000 was represented by common stock, $202,000 by bonds, and $425,000 by mortgages, unsecured loans, and the like.

The Second Hampstead Tenants, Ltd., had assets on December 31, 1916, with a book value in the neighborhood of $1,515,000. Of this sum $300,000 was represented by common stock, $395,000 by bonds, and $765,000 by mortgages.

The accompanying table shows how many persons held different amounts of the outstanding common stock, preferred stock, and bonds in these three societies at the beginning of 1917.

Number of Persons Owning Different Amounts

1. Common Stock

Size of Holding	Hampstead Tenants, Ltd.	Second Hampstead Tenants, Ltd.	Oakwood Tenants, Ltd.
Under $50	1	—	—
Over $50 to $125	43	27	—
Over $125 to $250	127	99	3
Over $250 to $500	29	19	2
Over $500 to $750	2	4	—
Over $750 to $1,000	9	8	4
Over $1,000	1	1	1
Total	212	158	10

2. Preferred Stock

Under $50	—	—	4
Over $50 to $125	—	—	14
Over $125 to $250	—	—	110
Over $250 to $500	—	—	30
Over $500 to $750	—	—	4
Over $750 to $1,000	—	—	7
Over $1,000	—	—	9
Total			178

3. Bonds

Under $50	17	130	4
Over $50 to $125	44	172	14
Over $125 to $250	49	119	110
Over $250 to $500	32	50	30
Over $500 to $750	6	17	4
Over $750 to $1,000	8	20	7
Over $1,000	13	19	9
Total	169	527	178

Payment on Instalment Plan

No matter in what the tenant is obliged to invest his money, whether it be common stock, preferred stock, or bonds, it is customary to allow him to pay it either in full or in instalments. Whichever method he chooses, the

interest or dividend he receives is on the amount paid up. If he pays the full amount in cash, he receives his interest in cash; if he pays in instalments, the interest, instead of being paid to him in cash, is credited to him on his unpaid balance. The dividend on stock is 5 per cent, and the interest rate on bonds in sums of less than $250 is usually 4 per cent; on bonds in sums of $250 and upward, usually 4½ per cent. The increased interest rate on large amounts is to encourage speedy payment of the required minimum.

Retirement of Outside Capital

Provision for paying off the excess stock held by shareholders beyond a limit fixed by the society from time to time is made, in some instances, for the purpose of facilitating the retirement of outside capital. The charge has been made that the Co-partnership Tenants, Ltd., has attempted to subvert the co-partnership principle by contriving to get a preponderant voting power in its affiliated societies. Such control as it has was achieved through its financial operations. It borrows money by issuing stock to outside investors and investing the money so obtained in these societies. Its investors are not known to the tenants; their names and addresses are known only to the central organization. It is felt that there is little hope, therefore, that they will be able to see things from the tenants' point of view—they have no means of knowing the whole truth. As a consequence, they vote solidly for the policy of the central society, whatever that may be, so long as they are satisfied with its management of their investments.

These fears have apparently not been altogether without some ground. In the Oakwood Tenants, Ltd., for instance, the Co-partnership Tenants, Ltd., on January 1, 1917, owned $100,000 of the $105,750 worth of common stock issued. In the Second Hampstead society, on the same date, it owned $255,550 worth of the $299,940 worth of stock issued. To allay this criticism, the Co-partnership Tenants, Ltd., has agreed to transfer capital to the tenants in proportion to its own holdings in the society—about $50 worth of stock to $100 worth of bonds. Under this arrangement, every tenant will have the opportunity to become a partner by investing the same proportion of money in stock and bonds as the promoting partners.

Society Has First Lien on Tenants' Investments

The society generally has a first lien upon the investment of any member for debts due it by him. Any sum credited to a member may be set off toward the payment of such debts.

Repairs

All exterior or structural repairs are, as a rule, charged against the society. Interior repairs are, however, done by and at the expense of the tenant to the satisfaction of the management. When interior repairs have, in the opinion of the management, become necessary, it may order them to be done. If the repairs are not paid for on demand by the tenant, the society may deduct their cost from any sum credited to the tenant's investment account.

Ejectment of Tenant

If a tenant becomes an impossible neighbor, the management may give him notice to quit his house, repay the amount of his investment, and end his relation to the society.

Transfer of Investments from One Tenant to Another

When a stockholder ceases to be a tenant, the society has the right to buy back his stock. In the event of the society being unwilling to exercise this privilege, the stockholder may transfer his stock, subject to the approval of the management, to any other member of the society. If the transferee is not a member, he must first be approved of as such by the management before the transfer can be registered. The society usually obligates itself to repay the whole sum credited to a member where it refuses to sanction its transfer. This obligation, however, does not apply to members so long as they remain tenants of the society.

Considerations Affecting Control of Society

In certain societies all the tenants are required to be shareholders; in others, they have to be bondholders; and in still others, they are obliged to be both shareholders and bondholders. In some cases, provision is made to admit as tenants persons who are neither shareholders nor bondholders, subject to the condition that they make a minimum deposit. The detailed requirements in this respect are conditioned by various considerations.

Sometimes it may not be desired to vest too large a degree of self-government in the hands of the tenants. In such a case the shareholders would probably control the management, and the tenants, instead of being encouraged to buy stock, would be forced to acquire bonds. In other words, the tenants would be persuaded to acquire a financial stake in the society without at the same time obtaining a voice, or at least a controlling voice, in its management.

The views of Henry Vivian are especially interesting on this point.

"Tenants' co-partnership or labor co-partnership," he says, "is not a fixed system; it is an attempt to embody into a working contract, expressed in rules, articles of association, or agreements, the idea of unity of interests. The terms of the partnership will vary without end under different circumstances. The adoption of co-partnership by any business and its workmen does not necessarily mean that the business will in the future hand the management of its affairs over to its workmen. In most cases, anyone with the slightest experience in business affairs knows that before very long there would be no business to manage. Nor does tenants' co-partnership necessarily mean that the business of estate development involves handing the management of estates over to the tenants. In the case of labor co-partnership or tenants' co-partnership it may mean the adoption of such a transfer of management to employees or tenants, as the case may be, but whether this is so or not cannot be settled by employees demanding the control of a business, or tenants demanding the control of an estate as a right, but by it being proved that such a development is wise. If, in the practice of co-partnership on a more or less limited scale, the employees or the tenants demonstrate that some extension of the principle is advantageous, then the chances

are it will be extended. It is experiment alone under a variety of forms of co-partnership contract, whether in tenancy or employment, which can determine whether there is any best form."

The society may be perfectly willing to let the tenants control its policy, but conditions may make it more desirable for the tenants to hold bonds than stock. The bonds generally rank for interest before the stock. In addition to this, they also, as a rule, have a prior claim on the assets of the society. There are, however, cases, as in the Avonmouth Garden Suburb, where the preferred stock in the liquidation of the society ranks *pari passu* with the bonds for both principal and interest.

Bondholders, it should be mentioned, are occasionally given a voice, though not as big a voice as the shareholders, in the selection of the management. Thus, at Avonmouth, every member has one vote for every complete $25 share of common or preferred stock or for every complete $250 bond held by him.

The experience at Ealing, for example, was that the tenants were very reluctant to take up the amount of fully paid stock required. To make it easier for the tenants to acquire stock, the instalment method of paying for it was inaugurated. Even this did not help. At one time more than half the tenants in the suburb were not investors, notwithstanding the entreaties of the society. To have pressed the point would have meant that the houses would have remained empty. It was then decided to alter the rules so as to enable the holders of bonds, which could be taken up in smaller instalments than stock, to participate like the stockholders in the dividends paid on rents. This policy has been most successful. Since its inauguration, practically every house let has been leased to a tenant who has subscribed for bonds.

Where his employment is of an uncertain character, a tenant may find it inadvisable to invest in either the society's stocks or bonds. Conditions may occur where the tenant, if he should be obliged to leave his house, could not find anyone to take over his investment, except at a financial loss. This difficulty has been remedied in some societies by accepting, in exceptional cases, a deposit of a certain sum from the tenant in lieu of obliging him to purchase stock or bonds. This deposit, like the stock and bonds, may be paid in full at one time or in instalments.

That the degree of management to be entrusted to the tenants must be ascertained in each case is the view of Henry Vivian, Chairman of the Co-partnership Tenants, Ltd.

"The problem that confronts us," says Mr. Vivian, "in working out the co-partnership tenancy idea on our estates is to insure that those who become partners shall supplement the efforts of the board and officials to promote the welfare of the enterprise and to add to its stability and security. This question has been specially under the consideration of the Board of the Co-partnership Tenants, Ltd , for some two or three years. The Board, as a result of its experience, has come definitely to the conclusion that the unrestricted admission to complete partnership of tenants who have only a weekly tenants' interest, coupled with a small contribution to capital, which, as it is paid out on the tenant leaving, only in effect amounts to a deposit, is not the most satisfactory way of securing the coöperation of the tenants in promoting the welfare of the society.

"Under such a plan we admit to partnership those with a minimum of experience, sense of responsibility, and capital at stake, with no assurance that it is even their intention to make a permanent home for themselves on the estate. Human nature being what it is, many of these partners are sure to take a purely personal view of questions affecting the estate's welfare, and if their private wishes are not satisfied by our officials, rules and tenancy agreements notwithstanding, they act regardless of any injury their conduct may inflict."

Mr. Vivian suggests limiting the right to become full members of a society in the future to those who have been tenants for a period of three years and who hold a minimum amount of common stock. At the same time, Mr. Vivian would withdraw the right of members to have their investments returned to them when they cease being tenants. These provisions would oblige those received into full partnership, not only to demonstrate their intention of making their home on the estate by acquiring a certain length of residence, but also definitely to risk something on the success of the venture. They would not be able to rid themselves of all responsibility by giving a week's notice and clearing out.

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Committee on New Industrial Towns

This Committee was organized in 1916 for the study of methods whereby the unearned increments of land value which are created in various localities by the influx of new populations following the establishment of new industries may be anticipated, conserved and converted into extra annual revenue for the community.

Lawson Purdy, Chairman; Ex-Chairman Board of Taxes and Assessments, New York City.
Frederick L. Ackerman, Architect, New York City.
Alexander M. Bing, Real Estate, New York City; Secretary Committee on Housing of the Shipping Board.
Robert Murray Haig, Assistant Professor of Economics, Columbia University; Investigator of Taxation in Vancouver, etc., for Mayor's Committee on Taxation.
Robert D. Kohn, Architect, New York City.
Robert E. Simon, Real Estate, New York City.
Graham R. Taylor, Associate Editor of *The Survey;* author "Satellite Cities," a study of new industrial towns.
Herbert S. Swan, Investigator for Mayor's Commission on New Sources of City Revenue and for Committee on City Plan, New York City; Secretary Zoning Committee.
C. H. Whitaker, Editor, *Journal American Institute of Architects*, Washington, D. C.
Richard S. Childs, Secretary; General Manager, The Bon Ami Co., 381 Fourth Ave., New York City.

Publications

To be had on application to the Secretary of the Committee on New Industrial Towns.

A Memorandum to the U. S. Steel Corporation. A plan for the Conservation of Future Increments of Land Values at Ojibway and for Conversion of the Same into Additional Revenues for Community Purposes. 20 pp. Free.
The New Garden Cities of England. An account of British war housing for munitions workers. Reprinted from *The Outlook*, March 6, 1918. 4 pp.; illus. Free.
How Shall the Government Dispose of Its Industrial Housing? Reprinted from the *New Republic*, March 30, 1918. 8 pp. Free.
The Unearned Increment in Gary. By Robert Murray Haig, Ph.D. Reprinted from *Political Science Quarterly*, March, 1917. 16 pp. Free.
The Housing Problem in War and in Peace. A symposium published by *Journal of American Institute of Architects*. 120 pp.; 65 pp. illustrations. $2.25 postpaid.
A Self-Owning Town. A Report to Mr. F. P. Palen, Vice-President Newport News Shipbuilding and Dry Dock Company, regarding "A Co-Partnership Scheme for Hilton."

The Proposed Standard Registration Law

It is impossible to publish in this issue the proposed standard registration law, submitted to the convention by the Committee on Registration, but copies are available on application to the Executive Secretary at The Octagon. Those members and delegates who attended the convention at Philadelphia, and who are thus familiar with the proposed standard, are invited to send their criticisms to Mr. William P. Bannister, Chairman of the Committee, at 69 Wall Street, New York City. Others who are interested in the question are requested to write the Executive Secretary for a copy of the law in order that they, too, may send their criticisms to Mr. Bannister, on or before May 20 next, if possible.

Fifty-First Annual Convention

THE fifty-first annual convention of the Institute was held at Philadelphia on April 24, 25, and 26. This is the first convention to be held at the new date, which was changed by the fiftieth convention, at Minneapolis, from the month of December to a month in spring. In keeping with custom, the meeting-place would have been Washington this year, but due to the war congestion in that city, Philadelphia was selected by the Board of Directors. It is impossible to give a complete report in this issue, owing to the late days in the month on which the convention was held, but this preliminary report will be completed in the next issue. The convention was called to order by President John Lawrence Mauran, who then addressed it as follows:

Address of President John Lawrence Mauran

In these days of stress and patriotic endeavor, when one of the principal activities of a government at war is *building*, why are the architects idle? That is the insistent question on the lips of every member of our profession and of the intelligent citizens who stand amazed in the face of such an anomalous situation.

Heretofore our traditions with respect to the President's annual address have been undisturbed by world convulsions, and it has always been kept within the bounds of an academic dissertation. At the last three conventions, the horror of this war, which had as yet left us unscathed, lent its first imprint to the traditional address; but with our awakening to war's actualities—to its exigencies—to its inexorable incorporation of all the resources of the peaceful arts and forces into one colossal machine which shall carry on to victory, it seems to me but logical that my address at this fifty-first convention should deal with the stern reality of things as they are, and not as we would have them.

First, let us review briefly the activities of the Institute and of its officers in those early days when we fondly dreamed that it was but a question of a short time when to us would be allotted that part in the great machine for which our training especially fits us. With the very threat of war in the air, we surveyed our assets, and immediately upon its declaration, we tendered them freely and proudly in the conviction that they were priceless. Although I have endeavored to satisfy the natural craving for information on the war work of the Institute by sending bulletins to the membership, it will be helpful to consider again some of the steps taken so bravely, which have led us so short a distance on our way, in order to see the complete picture, comprehend the nature and strength of the barriers reared against us, and to discover, if possible, which way lies a hope that the potentialities of our eager, restless, constructive forces may be utilized.

Our pre-war activity was the formation of a Preparedness Committee, whose duty it was to ascertain, through careful study, the nature of the service our profession was best qualified to render in the event of war. As soon as the die was cast, a full tender of our services was made to the President in a letter which included convincing excerpts from the report of the Preparedness Committee. Hardly had the formal acknowledgment of our patriotic offer been received, when I was asked by a great number of architects throughout the country to present to the war-making departments, and to the Red Cross, their services without charge, and the services of their office forces at actual cost. You can conceive of my satisfaction on receiving from the Navy Department an almost immediate acceptance for work amounting to something over three million dollars.

No sooner were negotiations under way than the Council of National Defense summoned me to Washington, merely to inform me that the Committee on Emergency Construction had made a report to the General Munitions Board adverse to the acceptance by the Government of gratuitous service. I was told that the Committee believed that if the war was to continue a matter of a few weeks or a few months, our splendid offer would be gratefully accepted, but in view of the belief that, with protracted war conditions, the architects, as well as the contractors and engineers who had made individual offers of free service, would find themselves without clients other than the Government—which would of necessity have to tax these patriotic citizens, serving without remuneration, for the conduct of the war—the Committee recommended that in view of this economic fallacy we withdraw our offer. I may say here that, through all the negotiations looking to the employment of the architects, this request has been duly recognized, although we have been ready at all times to adhere to the original offer.

Shortly thereafter I received the startling information that the plans for the cantonments, which had been rushed to completion by the War Department, were shockingly inadequate in the provision of reasonable living conditions in the barracks buildings. On the following day I went to Washington and took this matter up with the Committee on Emergency Construction and the Chairman of the General Munitions Board, with the result that an Honorary Member of the Institute was appointed on the Emergency Construction Committee, and, through a conference of leading architects familiar with housing, hastily summoned to Washington, the plans since used in cantonment work were developed. In passing, it is worth recording that in the estimation of a Government official the changes

effected have saved some twenty million dollars in the cost of those cantonments, and Heaven alone knows how many lives.

Immediately following the declaration of war, one of our members who had served the French Government in the building of hospitals, had volunteered for a similar service to the Medical Department, and while our united efforts failed to secure his service in the designing of the hospitals in this country, it is gratifying to know that those for over-seas were designed under his direction, with the collaboration of another member of the Institute.

In the meantime, the major portion of the building program of the Navy Department had to be abandoned because Congress failed to appropriate money to provide the much-needed hospital extensions, warehouses, and other buildings which we were prepared to handle for them, but very important work was done at the Navy Yard in Philadelphia and the Navy Yard in Brooklyn, under the plan adopted of allotting these enterprises to Institute committees rather than to individual offices, in order to make the service rendered that of the Institute rather than that of the private architect. How great the service of our profession might have been is indicated by the splendid results achieved in both these cases, in testimony whereof, the Officer in Charge has written with enthusiasm of the perfection of the drawings and specifications prepared in record time.

In the late summer, inquiries began to come to me from various quarters, including the Shipping Board, as to how the advisory service of architects could be secured, and from the Signal Corps as to whether we could furnish three hundred candidates for lieutenantcies. Both these services were rendered with a promptness and completeness that has called forth the admiration of those officials who have come in contact with the Institute's war service. In approximately a week, we had filled the Signal Corps' quota of three hundred, through the immediate activity of Chapter officers who coöperated with the same efficiency that they displayed in responding to the confidential request for that data concerning responsible contractors throughout the country which has proven so invaluable to the Council of National Defense and the Cantonment Division.

As the British and French Commissions had both warned our Government against committing the error of sending technically trained men to the trenches, as summarized in the British Commissioner's statement:—"We should indeed be fortunate if today we had in technical service one-tenth of the architects who lie buried in foreign soil"—we have maintained, from the declaration of war, a card catalogue enrollment of all architects and draughtsmen, whether members of the Institute or not, who desired technical service, and since it was early apparent that any attempt to exempt our profession *for* such technical service might be misunderstood and interpreted as an effort to exempt *from* service, this enrollment was utilized to furnish all men of draft age with a Certificate of Enrollment for Technical Service and a personal letter from the President of the Institute to the officer in command, requesting assignment to service in technical fields. Whatever may be the measure of our success—and the letters I have received would indicate that it is by no means inconsiderable—no effort has been spared to assist the Government and to place our men where they can do the most good.

The Institute has been a guiding force in the organization of the Professional Classes War Relief, modeled on lines similar to the British organization of like name, which has performed in that country such splendid service.

Major Evarts Tracy was the Chairman of our Preparedness Committee, and with him your officers had been laboring with the War Department to secure an early organization of a Camouflage Division, but our constant prodding produced uniform replies which may be summarized by the words in the final communication: "Thanking you again for your patriotic offer, I beg to inform you that the American Army will do no camouflage work, as the French Army will perform that service for us." But by the irony of fate, the same mail brought me a letter from Major Tracy beginning: "Three rousing cheers, the Institute is on the map, for I've just been appointed Chief of the Camouflage Division of the U. S. A." This trick was turned by a cablegram from General Pershing requesting the organization of an American camouflage unit. If there are any more Pershings, let us hope they will soon be discovered.

The Division he organized is now in France; the work in this country is left in the able hands of Capt. Aymar Embury II, while our intrepid Major is in charge of this new branch of war in the French college for the instruction of officers.

Typical of the attitude of a Government unused to the employment of highly trained specialists, has been the almost tragic delay in recognizing the need for houses as a prerequisite to the production of ships and munitions. In this connection, the service of the Editor of the Journal has been more than notable. His pen and personality have been dynamic forces in getting the unrelated machinery into any sort of action, while his foresight in arranging Mr. Ackerman's visit to England made the Journal the leader and the authority on this momentous question.

The Journal has likewise performed a notable war service in its Structural Service Department, so ably and painstakingly conducted by Mr. D. Knickerbacker Boyd, the practical value of which is demonstrated by the use which Government officials are now making of it in connection with war construction work.

In these days, when the normal progress of private work has been rudely arrested by the sudden rise in cost and shortage of material, labor, and transportation, it seemed a duty to investigate to see if there is not some middle ground between "business as usual" and the equally untenable theory of entire cessation. A discussion of the question will later occupy the attention of the convention.

This record would not be complete without an acknowledgment of the sustained interest and active coöperation of Major—now Colonel—Starrett, a member of the New York Chapter and Chairman of the Emergency Construction Committee of the Council of National Defense, for he has been, and still is, the one outstanding official who has sought every means to secure the recognition of the profession in those fields where he feels, with us, we ought to be in active service. It was on his invitation that an Advisory Committee of Architects was invited to Washington to confer and report to his Committee on a

construction policy for the Government, which was endeavoring to carry out a colossal building program without any coördination of departmental effort.

Major Starrett labored untiringly with your officers to prepare the way for the rendering of those services we all confidently expected would be delegated to the architect as the one best qualified to render them; but it always seemed as if the officials in the war-making departments were too busy with the details of rapidly moving affairs to discuss—let alone reorganize—systems by which this vast amount of detail could be lightened and the work be done by those best fitted to do it. Unhappily, no bureau of public works, such as we have advocated for years, was in existence to handle the sudden expansion of construction work by distributing it among the countless available channels; and so today we find overexpanded governmental agencies far behind with their schedules of building, and, with a few brilliant exceptions, the architect with little or nothing to do, and his priceless organization badly crippled by the inroads of military and civil employment on Government work.

Now a survey in retrospect reveals the underlying forces which have rendered our efforts as unavailing as those of the English and French, for our situation differs not at all from that covered by Professor Simpson's statement to the Royal Institute of British Architects, last December, in his reference to the fact that, "unfortunately for the country and ourselves, the profession was completely ignored at the beginning of the war."

The all-explaining truth is that West Point and Annapolis have no course in architecture, but they have courses in engineering, and the training thus acquired has created a tradition which seems to blind the army engineer to the existence of another profession, equally or better qualified to plan and design. He has always made a practice of designing and of performing all other usual architectural service in those additions and extensions to barracks, training stations, and army appendages which are often an offense to the eye of one trained in the intelligent and economic development of purely architectural problems. It is unfortunate, but perhaps natural, with army and navy engineers at the seat of war activities in Washington, that the attempt was made to expand their modest draughting-rooms into colossal offices by giving additional engineers commissions in the Officers' Reserve Corps, and by hiring draughtsmen away from our organizations which, in the interest of the nation, should have been preserved. And in these vast and newly formed aggregations of unrelated cogs, there was not one master mind trained by successful architectural experience to correlate these cogs into an efficient machine such as could carry out plans conceived with that breadth of imagination which is the peculiarly essential characteristic of the successful architect; not one master mind capable of grasping the opportunity of organizing an efficient army of architects already encamped throughout the country ready to tackle the national job in its local application and under the command of its central authority in Washington.

And so it was hardly the massed attack of the civilian engineers upon Washington officials which kept the architect out of his own, but rather the thoroughly intrenched position of the army engineer who drew these reinforcements from civilian ranks. By way of illustration I could tell you countless stories, typical of the closed mind of certain army engineers, so far as architecture is concerned, but one or two will suffice.

Not long ago a very well-known architect from the Middle West appealed to a very good friend of his—a colonel in the Cantonment Division—to give him an opportunity to serve. The colonel, turning to one of his aids, asked if he thought Mr. Architect's services could be utilized, whereupon the young swivel-chair warrior replied, in a superior manner, that he feared there was no opening, since their sole need was for men familiar with building construction. The reply of our friend, the architect, was couched in no parliamentary language, and while it would do your hearts good to hear it, those portions which gave it real moral force are unfit for publication.

Again, an architect who had been forewarned of the Division's attitude toward the profession, made application as a constructing engineer, and was promptly accepted, and has since performed valuable service of a purely architectural character.

And, lastly, may I quote the reply of an officer in charge of construction work to my reiterated question as to why our services, so freely tendered, had never been utilized by his Division; I could hardly believe my ears when he said: "Why, for the very reason that as yet we have had no architectural problems to contend with."

But, looking backward over this year of rather discouraging experiences, it seems impossible now to avoid the conclusion that our efforts were far from being in vain. In administrative circles, at least, the architect is finding a steadily increasing appreciation of his services, while there is also a decided tendency to utilize private organizations in many lines of work. We must remember, however, that no government in the world is so highly organized as immediately to utilize the services of all its professions, and it is not unlikely, when the facts are all known, that we shall find that the United States was quicker to utilize the services of architects in war than were the nations of Europe.

Many ascribe our failure to receive early recognition to the unfortunate lack of cordial relations with Congress and official Washington; to a lack of understanding of the functions of an architect, and even a lack of "appreciation" of the profession which they conceive to be its earned due, which some as yet undiscovered magic needle of publicity might inject into the sluggish circulation in the veins and arteries of the body politic.

To my mind, based on an intimate view of the constantly shifting picture at the National Capital, both theories of cause and cure are based on the error of superficial appearances; true indeed it is that Congress and official Washington do not conceive that there is a natural and well-earned right of our profession to "appreciation"—true, it is, indeed, that these same people whose position clothes them with a subtle something of apperception not possessed by the ordinary mortal, have little, if any, conception of the "functions" of an architect, but have we ever stopped till now to ask ourselves why?

Stop now and think, who are these awe-inspiring senators and representatives—these cabinet officers and bureau chiefs? Why, forsooth, they are the next-door neighbors,

the fellow townsmen of members of the American Institute of Architects from one end of this broad land to the other.

If, in the aggregate at Washington, these officials lack "appreciation" and fail to understand aright our "functions," these qualities have not been instilled into the individual (which goes to make up the aggregate) when they lived "back home." If this be true, is it not possible that the fault lies with *us* as individual architects, rather than with the professional body of which we are component parts—and if we have thus failed, should we not seek the sources of failure?

Have we stood shoulder to shoulder with the budding politician in civic activities, showing that executive, constructive grasp of civic problems which is the heritage of every architect worthy of the name; or have we held aloof only to be drawn into some "City Beautiful" movement, born but to die, because we do not insist that our talents are dedicated to the "City Practical"—for no city is practical wherein development does not unite both beauty and utility—and in our professional practice with these officials in their capacity of private citizen and fellow townsman, have we established, through efficient and capable professional *service* rendered, that deep-seated conviction of the administrative ability of an architect, or has the congressional conception of an architect as a dreamer and long-haired creator of useless but expensive dewdaddles come to the Capital only from the supervising architect's office?

No lawyer ever became famous in his profession through forensic brilliancy which bore no fruits of cases won.

No doctor ever won eminence through an "appreciation" of his profession which was not founded on lives saved, in his "service" to mankind.

A modernized hybrid proverb might be worded: "Deliver the goods and they shall return to you after many days."

And if I ask you, as honorable citizens, what price you are willing to pay to avoid such lack of cordiality as may exist between the Institute officially and a few officials and congressmen with whom we have locked horns in support of our duty as we saw it, I know your answer in advance.

Rather than disturb the slowly growing tolerance of Government officials toward the Institute, would you have seen your officers stand supinely by while the beauty of our beloved Capital was marred by that unsightly power-house invading its dedicated park area?

Would you, for the sake of that same "commercial peace," have had your officers stay their vigorous protest against the breaking of the Government's faith toward the profession in abrogating its contract with the winner of the competition for the Department of Justice Building? Would you have had the Journal refrain from attacking and defeating the public-building bill, merely because in thus revealing the story of the great national waste and blundering involved in a traditional national policy of treating the people's public buildings as a part of the partisan political machine, we might incur the enmity of a few congressmen? No, ten thousand times, no! And if I could believe you counted these battles for the right as errors of judgment in policy, then would I glory indeed in being a party to such errors.

No, my friends, the common loss of the Government and our profession is attributable to the combination of unfortunate conditions which I have outlined to you, and to accentuate the handicap, the one post of Supervising Architect of the Treasury, which the law required shall be filled by a trained architect, has not been so filled for a number of years.

That the strenuous efforts of your officers and the host of Institute members impatient to serve found a strong barrier of misunderstanding to break down is illustrated by the attitude of one cabinet officer who languidly replied to my assertion that architects were eager and willing to serve in *any* way, so long as they might thus show their patriotism: "Oh! yes, I've heard a lot about the hordes of architects who are pestering everyone with their offers of free service and their complaints that their professional value was not being recognized, and I'm getting a bit weary with it." So patent was the inference that I was stung into the hot retort which shattered his complacency: "Mr. Secretary, is it fair for you and the host of other Government officials who are firmly entrenched in the satisfaction of serving our country in its hour of need, to impute unworthy motives to a profession which has been consistently denied that God-given privilege, but whose every act and self-sacrificing offer of service betokens a depth of patriotic feeling which entitles them to that same satisfaction that you enjoy?" In an instant his whole attitude changed, and he replied: "Mr. Mauran, I never thought of it in just that way; now tell me how I can be of assistance."

In closing, I wish to dwell for a moment on the admirable devotion of the chairmen of the hard-working Institute committees; of the Treasurer in his arduous and not always pleasant task, and of the Secretary—and here may I particularize for your own enlightenment. In addition to a voluminous, carefully considered correspondence, your Secretary has compared, *word* for *word*, every submitted draft of Chapter Constitution and By-law—not once only, but in some cases several times, in the conscientious performance of the duty entrusted to him.

And so, in closing, I can say with full conviction: Whatever may be the measure of success in advancing the best interests of our country and of our beloved profession, labor toward that end has been given lavishly and without hope of reward other than the satisfaction of having done one's best in a cause to which one's devoted interest has been dedicated.

Government Relations

Report of the Board

The main topic for discussion at the fiftieth convention last year, or rather year before last, to be exact, was "Government Architecture." The report of the Board referred to the title as being inadequate and possibly misleading, and said "It is rather the attitude of the people of the country and of their representatives in Congress, toward every question with which the arts enter, and toward the Government's policy, or rather lack of policy, in the construction of public works."

Prior to the last convention the Institute had been active in this regard, principally in endeavoring to bring about a revolution in the Government's public building policy

and in advocating the institution of a bureau of public works.

The importance of this general subject has been forced upon your Directors with increasing intensity during the past year, the vast Government building programs required by the war serving to bring into view new facets of this many-sided problem. Also, a new point of view toward it was required of the profession, and the Institute, through its President, was not slow in showing its appreciation of this fact and in taking appropriate action. The Institute promptly laid its individual and collective services at the disposal of the Government, which, barring the few instances which stand out as significant exceptions, politely but very clearly intimated that it had no need for such services.

We were recently told, in so many words, that the Cantonment Division had had no architectural problems. They had merely built a dozen or more cantonments, each being a city of 30,000 to 40,000 inhabitants. The difficulty in such a circumstance is to know whether to laugh or cry.

It is the pondering of the state of mind that made such a declaration possible that has led to the selection of the "Architect's Service" as the main topic for discussion at this convention, for at the root of all the difficulties that your officers have encountered in their attempts, both to aid the Government by furnishing expert service, and to aid the legitimate interests of the profession by striving for its rightful recognition and use, is the monumental lack of understanding by those in power of the main function of an architect in the practice of his profession.

Let us hope that in the discussions of this convention some inspired soul may utter the pregnant words that shall be able to bring a clear vision to the astigmatic politician as well as to the myopic army engineer.

There is no need here to repeat at length the steps taken by the Institute. Your President has already reported on them in the December Journal and in his opening address today, and more will develop in the later sessions of the convention.

Registration Laws

Report of the Board

Fourteen states have passed laws for the regulation of the practice of architecture, four having done so since the last convention, and there are others having similar laws in preparation. At the fiftieth convention it was

Resolved, "That the regulation by law of the practice of architecture is neither advocated nor opposed by the Institute, which believes that the desirability of such legislation is a matter for each state to determine for itself."

While the Board still holds to the second part of this resolution and does not believe that the Institute should at this time actively advocate the passage of a registration law in every state, it is in agreement with the present Committee in feeling that the Institute should without further delay adopt a standard form of registration law to serve as a model for future legislation, and to determine a standard of academic training and practical accomplishment, which should be required of those admitted to practice under the title of architect.

The Committee presents for the consideration of the convention a first draft of a model law, and feeling the importance of the subject, the Board has set aside an evening session for its discussion. The determination of minimum requirements for educational and practical proficiency will be far more difficult than the drafting of a good model registration law. It is a fit subject for the joint labors of the Committees on Education and Registration and it is the hope of the Board that the next convention may have for consideration not only a definite set of values but a practicable method for testing them.

NOTE.—At the evening meeting, when the subject of registration was discussed at length, the convention unanimously voted that the Institute should prepare a standard registration law as a model.

Advertising

Report of the Board

On the subject of advertising, the waves have been beating higher and higher in recent months, and the Institute has been bombarded with private and public admonitions to wake up and take cognizance of the rising storm.

It is, perhaps, only fair to intimate here that the Institute has been very much alive to the importance of careful consideration of this matter. In January, 1917, the Board discussed the question of advertising and the obvious difficulty of drawing a clearly defined line between legitimate publicity and improper advertising.

This discussion has, of course, prevailed heretofore in the gradual development of the present Canon No. 4 from earlier qualified forms to its present direct statement, which simply says it is unprofessional to advertise.

In order to survey this vexing question once again, a Committee was appointed which presented a report to the Board at its September meeting, and this report in substantially its original form is presented to the convention for consideration.

The substance of this report is that advertising to excess is a question of bad taste, that it is practically impossible to define and control matters of taste by legislation, and that it is better, therefore, to remove advertising from the list of punishable offenses and revise the Canons of Ethics accordingly. The Board refers this report to this convention without recommendations.

Report of the Special Committee

At the January 19, 1918, meeting of the Board of Directors, the Committee on Advertising was instructed to prepare its report for the Convention in 1918. This report, which was originally prepared for the Board, and submitted at the September 19, 1917, meeting of that body, is here presented in accordance with those instructions:

Appointment and Instruction

At the Board meeting held January 18–19, 1917, at Washington, this Special Committee was appointed and instructed: "To consider and report to the Board upon a definition of advertising, with recommendations as to the attitude the Institute should take."

History

The following items of recent Institute history seem to have sufficient bearing on the purposes of this Committee to justify their rehearsal here:

At the Convention of 1915, Mr. Howard asked the question: "What is the advertising referred to in the Canon?" and made the motion, which was carried, "to have the Board go into the subject and give a more or less explicit definition of what is desirable publicity, and what undersirable advertising, as noted in the Canons of Ethics." At the same Convention, however, a motion to eliminate advertising from the Canons of Ethics failed to carry. In the Board's report at that Convention, there was promulgated the principle that "advertising is publicity for which the recipient pays," and in the same report it is shown that there had been raised the question as to whether the Institute should place advertising in the same category with false or malicious injury to a fellow, competition on the basis of professional charges, accepting commissions from contractors, and the other more heinous sins, which are declared to be unprofessional and as such to render the person who commits them subject to discipline.

The report further rehearsed "that advertising tends to lower the dignity of the profession and should be condemned," but, it continues, "it is generally an exhibition of bad taste rather than bad morals."

No recommendation in this connection appears to have been then made other than the suggestion that if there is any widespread feeling that a change in Institute policy is desirable, it be made known to the Board during the coming year.

It is worthy of note that advertising seems to have been lost sight of in the Convention of 1912, as no important reference to the subject appears in the Proceedings of that gathering. During 1916, however, the Georgia Chapter's request for a definition of advertising brought out the ruling—coincided in by both disciplinary Committees and the Board—that "the insertion of a card in a newspaper constitutes advertising," an opinion not concurred in by the Georgia Chapter. It also appears that during 1916 a prima facie case of advertising in a periodical was found against a member and submitted to the Judiciary Committee by the Committee on Practice.

At the Board meeting held in January, 1917, Mr. La Farge asked for more information regarding the Board's attitude on advertising, because, he said, in considering an advertising case before the Judiciary Committee, diametrically opposite conclusions had been reached by some of the Committee members.

The minutes of the Atlanta meeting show renewed interest in the subject, while in a notable case recently brought before the Board from the Pacific Coast, we have had an example of the baneful possibilities under our present canon that is as interesting as it is timely.

Investigation

Letters were addressed to the various professional societies of national scope, asking the status of advertising in the several professions represented and the attitude of these associations on the subject. A fairly good idea was thus obtained of the collateral aspect of the subject at the present time.

Questionnaire

A questionnaire covering in detail the forms in which the advertising problem is usually met was presented to the officers and directors of the Institute, and from the twelve replies thereto the Committee has been able to form a very fair composite of the attitude of the present Institute administration on the subject.

As a first step toward its consideration of the advertising problem and the conclusions it draws, the Committee suggests that "Advertising," meaning such advertising as may be rightly called unprofessional and as such disapproved, be defined as "self-laudatory publicity procured by the person advertised, or with his consent," thus leaving the way open to the use of all forms of publicity that can not be so defined.

From the replies received from the several professional societies, we gather that in no other case has ordinary advertising been exalted to the rank of a punishable offense. The following is an extract from the Canons of Ethics of the American Bar Association:

"The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper." The same authority calls it unprofessional to solicit business by circulars or advertisements or personal communications or interviews—not warranted by personal relations, or to procure business through touters of any kind, such as allied real estate firms. The canon ends by saying "that such self-laudation defies the traditions and lowers the tone of this high calling, and is intolerable." It appears to be a fact that the publishing of simple business cards is not at all unusual among lawyers—particularly in the smaller cities.

The principles of medical ethics are quite frankly copied from the canons of the Bar Association, their ruling on publishing business cards being exactly the same. We find, too, that the custom in this regard follows quite closely that of the lawyers—the practice being very general, particularly in the smaller communities.

In a special circular on ethics published by the American Medical Association appears this pronouncement: "The refraining from or the employment of advertising is the clearly defined difference between a reputable physician and a quack."

For the American Society of Civil Engineers, their Secretary writes that they are much interested in the matter of advertising, and anxious to know what the Institute may accomplish toward the solution of its problems. Their Code of Ethics reads "to advertise in self-laudatory language, or in any other manner derogatory to the dignity of the profession, shall be considered unprofessional."

In the Code of Principles of Professional Conduct of the American Institute of Electrical Engineers, the subject of advertising is not mentioned.

The Code of Ethics adopted by the most recent of these organizations, the American Institute of Consulting Engineers, seems to have been largely copied from our own, with the canon on advertising significantly left out. Under the heading "Ethical Questions and Answers Thereto," advertising is discussed as follows:

"Question:"

"In what ways and to what extent is it considered proper for engineers to publicly advertise their professional business?"

"Answer:"

"It is generally accepted in the profession that advertising by engineers should be restricted to modest, brief and dignified forms, such as announcements and professional cards in the public press. Professional cards may give the name and address of the person or firm, the branch of engineering and the specialties in which he practices, and the names of the professional societies to which he belongs.

"Laudatory notices, articles, or accounts of professional work in the secular press should not be inspired or encouraged by the engineer.

"Approved March 6, 1916."

For the American Society of Mechanical Engineers, Calvin W. Rice, their General Secretary, writes as follows:

July 24, 1917.

Mr. Thomas R. Kimball, F. A. I. A., Architect,
World-Herald Building, Omaha, Nebraska.

My Dear Sir:—In response to your favor of the 18th, I will cheerfully make answer to your inquiry by trying to give a consensus of opinion of this Society with respect to the ethics of advertising by professional engineers.

We have been through the procedure of a referendum of the entire membership as to the question of whether or no we should take advertising in our monthly Journal, and have overwhelmingly decided in favor of advertising, the vote being about eight to one out of three thousand votes cast.

Inasmuch as the votes received were from less than one-half the membership, it is fair to presume that those who did not reply were either in favor of, or, at least, indifferent. With the urging that we made, I cannot conceive of anyone unfavorable to advertising failing to register his protest.

Having made a study of the attitude of professional bodies, both of this country and of abroad, and of the opinions of the members of this Society, I will undertake to say that in America it is entirely proper and in "good form for the professional engineer (or the architect) to advertise in 'newspaper' or 'magazine,' 'both paid and unpaid,' through 'signs on buildings in course of construction,' and through 'circularization in its various forms.' "

In other words, in my opinion, in which I think the majority of professional men would concur, all of the forms of advertising which you enumerate are proper and compatible with dignity.

We have never undertaken the formation of printed regulations with respect to advertising, but I would cordially join with the American Institute of Architects in the preparation of a joint report on such a subject, and recommend that you take the initiative.

If the above does not completely answer your inquiries, do not hesitate to ask again, as I wish to definitely and unequivocally favor proper, dignified advertising, and believe it is truly American enterprise.

Very truly yours,

Calvin W. Rice, *Secretary.*

The answers to the twenty-five questions covered by Mr. Howard's Questionnaire show that most of us view most of the cases alike, but from the very general and careful way in which the answers are qualified it is clear that we all recognize both the importance of governing conditions and the hair-splitting shades of difference on which our positions hinge. In a few cases, even with us, diametrically opposite views are held on apparently simple phases of the problem

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In searching for a recommendation that shall be sufficiently representative to carry with it the majority favor of our members, that shall be abreast with the best public feeling on the subject, and that shall in practice be reasonably sure to result in justice in all cases, your Committee concludes that with the present canon in force we hold practically every form of publicity with which we are familiar to be "advertising," and as such unprofessional and to be forbidden, exactly as we now forbid "an advertisement in a periodical" or "a card in a newspaper."

With this, to us, wholly unfortunate canon repealed, your Committee stands flatly for no punishment for those who would advertise, other than the punishment which will unavoidably result from the practice itself.

Before advancing suggestions for the Institute's attitude on advertising, we plead for the repeal of the present canon, the baneful influence of which is, we think, reflected in our own limited membership, in the modesty of our material success, and surely so in our failure to be understood or appreciated by the public. If for no other reason, we should abolish this canon for the sake of our other canons. As we seem to require protection against ignorance and vice within the Institute, and as our Canons of Ethics are intended to provide that protection, they should not be lessened in effectiveness by having one of their number directed against this error in bringing up this offense against good taste, thereby classing it with such evident vices as undermining a fellow member's character or stealing away his means of livelihood. This was clearly seen by the Board of Directors and pointed out in its report to the 49th Convention, but as before noted, that same Convention voted to retain the canon, and so to continue the condition which the Board's report has so clearly shown to be both unjust and ill-advised.

To drop from the Canons of Ethics all reference to advertising, and reword the Circular of Advice to cover disapproval of all self-laudatory forms of publicity procured by or with the consent of the person seeking it, would be, we think, to place the Institute in the attitude of regarding advertising by architects as an unfortunate manifestation of bad bringing up or of warped understanding—the evidence of stupidity rather than of vice, a position that would not prevent us from using, against objectionable advertising, ridicule, which is the weapon that we are told has effectively cured all advertising trouble in the American Bar Association. Such an attitude enables the Institute to point out the proper course and to explain why, to discourage all forms of advertising that may be considered in bad taste and so detrimental to the profession, and at the same time to permit all those other forms of publicity that are not objectionable, thus clearing the way for an

immense amount of educational and otherwise useful publicity that, feeling the cramp of doubtful propriety, has heretofore been withheld, though frankly desired by many who are not now members because of our canon and because of conscientious scruples with which it conflicts.

From the rulings governing other so-called professions and their apparent practices, may we not conclude that our own position on advertising is at least the most inelastic, if not the narrowest, of them all? And may we not fairly ascribe to this fact at least a part of the explanation which must account for the relatively bad showing in the proportion our membership bears to the profession at large, and possibly for the present average of Institute intelligence compared to what it might be if our doors were more widely opened, and our angle of vision somewhat extended?

In the analysis of the "composite" of the attitude of our present administration (shown by replies to the Questionnaire), it seems unavoidable to conclude that the whole subject lacks the clear-cut outlines that should be manifest in what is the basis of a law carrying with it a far from intangible penalty. We wonder if we may be forgiven for seeming to read between the lines of this composite answer an apparent desire to avoid the appearance of evil—the look of advertising—rather than its publicity. Are there any among us unwilling to acknowledge that the advertising question is but one of degree, and that the practice of architecture owes its very existence to publicity? In the interest of progress may it not be high time to recognize openly that the place for one's light is on a candlestick rather than under a bushel?

To the makers of this report it would seem possible to support the plea for the repeal of Institute Canon No. 4:

By the injustice that has so far characterized its enforcement, or rather lack of enforcement. An unenforceable law is a bad law. Better no law than one that reaches only a part of the offenders and at that not the worst part.

By the tendency it has to suppress and restrict legitimate and desirable publicity. Better no rules than those that cost too much.

By its unfortunate limiting effect on Institute membership.

By its prejudicial effect in the eyes of the press. We as a profession need the partnership of the press and should have it even if we must make some concessions to gain it.

By the public's—not altogether unreasonable—claim that it sustains a loss in our failure to add our bit to general education through the medium of advertising.

By the fact that men of education stand openly on both sides of the question.

Perhaps not the least impelling of the motives that prompt the suggestions in this report is dread of what seems to be the one possible alternative. We can not advise embarking on any effort to legislate in the matter of anything so capricious as taste—with the cumbrous machinery that would be imperative—we have committees enough without having to create one on ethics. Is there any valid reason why, in this age of democratic endeavor, the American Institute of Architects should cling to this or any other relic of that time when the professional idea owed its existence to the mental entanglements with which it was surrounded? Is it not time that we consider carefully not only the loss of the canon on advertising but of how many more of the old worn-out rules, undemocratic distinctions, and un-American assumptions we can get rid of? Why not the honor plan in place of these cramping restrictions? It has been found to work where the moral tone is even lower that it is supposed to be among architects. Moreover, it would seem that the less we owe apparent cleanliness to fear of punishment, the less would we in truth deserve the punishment. In our recommendation to abolish the ban against advertising, we see nothing but gain in the possible consequences.

Advertising too generally, prompted by honest if stupid reasoning, would be the worst to be anticipated from the loss of the canon. A result not without advantages, however, for in the more general use of the harmless sort, the vicious sort would lose its effectiveness, due to the comparative isolation it now enjoys because of the sweeping restrictions of our canon or in the language of a well-known attorney—"While advertising is called unprofessional, it is thereby made useful to quacks, when if possible to all it would become at once useless to all."

Let us abolish Canon No. 4, and let us reword the Circular of Advice to show the difference between the good and bad in advertising, and to question its usefulness, not failing to point the finger of ridicule at the kind we resent. Let us do this—if for no other reason—to make it clear that in this day of democratic upheaval, our Institute is not unmindful of the writing on the wall.

To this end, your Committee on Advertising would welcome action by this Convention abolishing present Institute Canon No. 4, and giving instructions to the Board of Directors to have the reference to advertising in the Circular of Advice reworded accordingly.

JOHN GALEN HOWARD,
THOMAS R. KIMBALL, *Chairman.*

NOTE.—By resolution of the convention, Article 4 of the Canons of Ethics, which was to the effect that "It is unprofessional to advertise" was stricken from the Canons. The convention also authorized a rewording of the Circular of Advice to bring it into harmony with the Canons as they now stand.

Signing of Buildings

Report of the Board

Closely related to the report on advertising, and inevitably bound up with any discussion of it, is the request made by the Illinois Society of Architects, and later reinforced by several Chapters of the Institute, relative to "signing of buildings" in course of construction, embodied in the following resolution:

"*Resolved*, That the Board of Directors of the Illinois Society of Architects request the Board of Directors of the American Institute of Architects to consider and report at the next convention of the Institute upon the advisability of amending Section 13 of 'A Circular of Advice Relative to Principles of Professional Practice' regarding 'signing buildings,' so as to provide that it is recommended that every member of the Institute display upon every building under construction his name and rank in the Institute, with the further suggestion that a committee be

appointed to recommend the form of sign to be used by all members of the Institute."

The Board does not deem it necessary or desirable to comment at length on this suggestion, believing it is better for the pros and cons to be developed from the floor of the convention, and so refers it to the convention without recommendation.

NOTE.—This question, after discussion, was referred to the Board.

Professional Treatises
Report of the Board

Another closely related matter is that involved in the addition to Section 9 of the same "Circular of Advice," which the Board of Directors at its meeting in January, 1918, voted to present to this convention for consideration. Section 9 is entitled "On accepting commissions or favors," and now reads "The architect should not receive any commissions or any substantial service from a contractor or from any interested person other than his client." The addition the Board suggests is as follows:

"The issuance by an architect of a professional treatise or a monograph of his work, in the form of a book or pamphlet, which is supported by advertisements, whether privately printed or published through regular channels, tends to lower the dignity and standing of the profession and is to be condemned."

The Board believes there is no sound argument to the contrary and advises such amendment of the Circular.

NOTE.—The convention adopted the suggestion of the Board.

Officers Elected

President . . . . Thomas R. Kimball, Omaha, Neb.
First Vice-Pres. . Charles A. Favrot, New Orleans, La.
Second Vice-Pres. . George S. Mills, Toledo, Ohio
Secretary . . . . William Stanley Parker, Boston, Mass.
Treasurer . . . . D. Everett Waid, New York City
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Louis Ayres, New York City
Charles Butler, New York City
E. E. Dougherty, Atlanta, Ga.
A. C. Eschweiler, Milwaukee, Wis.
Albert Kahn, Detroit, Mich.
John P. B. Sinkler, Philadelphia, Pa.
William L. Steele, Sioux City, Iowa

The Journal
Report of the Board

Since comment upon the admirable Journal would involve a paraphrasing of the report of the Committee on Institute Publications, the Board feels it cannot do better than quote verbatim its vital portions, with its unqualified endorsement:

"While the accomplishments of the last five years are in themselves sufficient testimony to the far-seeing wisdom which led the Institute to establish the Journal, the Committee desires to record its opinion that the work of the Journal on the housing question is not only the most important of all the Journal's activities, but is one to which the profession may subscribe with the heartiest pleasure. Quite aside from the value of the Journal's work as a patriotic service of the highest character, and of the fact that largely through its instrumentality the Government is now committed to the task of meeting the housing shortage which has so seriously delayed our war production, the Journal has aroused an interest, as keen as it is widespread, all over the country, in the great and important question which has finally been given the title of "Housing." As a result, the whole country has been aroused to a critical examination of those social and economic factors upon which any architectural solution of the problem is wholly dependent. In this work, the Journal stands conspicuously at the head as the responsible organ of the Institute, and the services thus rendered to the profession are not lightly to be measured.

The Board feels that the increasing usefulness of the Journal, and especially its work of the past year, is so commendable, that it here wishes to record its tribute of appreciation.

Conclusion

It would be regrettable if, from the few items of convention action which are here printed, one should gather the idea that the unusual character of this meeting in any way robbed it of interest. On the contrary, the representation by Chapters, we believe, was as complete as any which a convention has enjoyed, while the arrangements of the Philadelphia Chapter for the entertainment of delegates were as varied in their interests as the city is historic. There was a tour of the old houses, ending with dinner at the several country clubs or at the homes of the members of the Chapter; a visit to Independence Hall and the old State House; a journey to the home of Mr. Widener where is hung his fine collection of paintings; and for the Saturday following the convention, a visit to Hog Island.

The convention was concluded with a dinner at the Germantown Cricket Club. An additional report will appear in the next Journal.

Book Reviews

Over the Drawing Board: a Draughtsman's Handbook.

By Ben J. Lubschez. The Journal of The American Institute of Architects, Washington, D. C. $2.

Somewhere somebody said, referring to "A Child's Garden of Verses," that it was written from the level of the nursery fender. Most of us, as we progress beyond the creeping age, forget the appearance of the undersides of sofas, chairs and tables once so familiar; forget the little things, the old aspects, that made up the world of our infancy. Mr. Lubschez has remembered the little things and this is one of the chief virtues of his book; the old hand is apt to take so much for granted; he forgets he once knew so pathetically little, that everything once was new to him, each step an adventure in a voyage of delightful discovery. Sometimes the composite odor of tracing cloth and india ink on a summer day will waft him back to that hot day in July when, beginning his journey, his nostrils were first assailed by that engaging smell; but usually he feels as though he always had known all about it all. It will pay him to have this book in the office to run through and refresh his memory. It is clearly and concisely written; here and there in the desire for compact statement it falls short of complete lucidity; here and there one would wish for a fuller description; here and there it smacks of the textbook for the amateur, and then immediately one remembers the fender and the undersides of things and forgives. It does not contain all the tricks; as, for example, the stretching of tracing cloth is not described in the chapter devoted to that material. The difference between the color palette proper to water-color sketches and that for formal rendering is not noted, nor are hints given as to those colors which will depose or settle and those which will not. Some of us might take issue with the palette Mr. Lubschez suggests; Prussian blue makes some of us shriek with pain, but, then, some would die with it clasped to their bosoms. But the book is an extremely useful compilation of many of the methods in use; some of them have been made familiar in articles by various authors in the architectural periodicals, but such articles are not always available and it is well to have the information in book form. And it should be in the hands of all the students and junior draughtsmen.

H. Van Buren Magonigle

The Italian Orders of Architecture.

Letterpress and 32 pages. Charles Gourlay, Royal Technical College, Glasgow. Longmans, Green & Co., New York. $2 net.

Another book on the Orders! Taken altogether its publication is justifiable. The plates are well drawn and reproduced and the whole volume is well gotten up. The examples chosen are useful ones and in the plates the reader may find reminiscences of Vitruvius, Vignola, and Palladio, of Sir William Chambers, Gibbs, Langley, Mauch, Spiers, and our own Professor Ware.

The book, especially in its letterpress, impresses one as being too compressed, as trying to cover too many things rather superficially, and consequently is apt to fall short in explicitness and lucidity as a textbook. Withal, however, it is a valuable work of reference offering many good hints to the student, and a unique edition of the primer of architectural design, for never before, in so far as the writer's knowledge goes, has a decently compiled and printed "Vignola" been offered at so modest a price.—B. J. L.

Obituary

William Albert Wood

Elected to the Institute, February 15, 1918
Died at Philadelphia, April 10, 1918

Henry Janeway Hardenbergh

Elected to the Institute in 1867; to Fellowship, 1877
Died at New York City, March 13, 1918

Mr. Hardenbergh's long connection with architecture spans an age of building development than which none was ever so bewildering in the rapidity with which our communities were transformed, not wholly for their good, as we have now discovered. The Dakota apartment house built by Mr. Hardenbergh, in 1884, was then the most notable building of its kind in the United States, and it still lives where many that followed have already passed into oblivion. Mr. Hardenbergh, in his later work, became widely known as the designer of such famous hotels as the Waldorf-Astoria, the Plaza, the Martinique, in New York City; the Copley-Plaza, in Boston; and the New Willard, in Washington. He was born at New Brunswick, N. J., February 6, 1847, and studied architecture under Detlef Lienau in New York City, from 1865 to 1870, since which time he was in active practice.

James Edward Ware

Elected to the Institute in 1882; to Fellowship, 1889
Died at New York City, April 14, 1918

James Edward Ware, who practised architecture for nearly half a century in New York City, was born there on July 16, 1846, the son of John P. and Eliza (Alvord) Ware. He was graduated from the College of the City of New York in 1864, and began practice in 1870. He was one of the pioneers in designing the modern type of fireproof warehouse—the buildings of the Manhattan

Storage & Warehouse Co. being notable examples of his work—and also in the designing of improved city dwellings for workers. He was one of the prize-winners in the competition held by the Association for Improving the Condition of the Poor in an effort to better living conditions in the congested districts, and it was from his plans that some of the earliest model tenements were constructed. Other examples of his work are the Twelfth Regiment Armory and the Madison Avenue Presbyterian Church. In later years, his sons, Franklin B. Ware, former State Architect, and Arthur Ware were associated with him.

Mr. Ware was for many years a trustee of the Manhattan Savings Institution, treasurer of the Industrial Christian Alliance, and a member of the Architectural League of New York. He was a member of Company B, Seventh Regiment, N. G. N. Y., for twenty-three years, and was one of the members of the regiment who acted as a guard of honor when the body of President Lincoln lay in state in the City Hall. In 1872 he married Edith Cordelain Backus. He is survived by his wife, three sons, Franklin B., Arthur, and Foster Ware, and three daughters, Mrs. Egbert S. Hurd, Mrs. George Sykes, and Miss E. Gladys Ware.

George Alexander Wright

Elected to the Institute in 1916
Died, San Francisco, California, March 2, 1918

Mr. Wright was born in Portsmouth, England, in 1852, and received his architectural training with Alfred A. Hudson, architect, Southsea, England, and from 1880 to 1885 with Thomas Hellyer, architect, of Ryde, Isle of Wight. He then assumed practice as architect and surveyor at Southsea and Wimbledon until 1889.

He was a licentiate member of the Royal Institute of British Architects, and a member of the Quantity Surveyors' Association of London. He had been a member of the Junior Conservative Club, a retired Captain of the Fourth V. B. East Surrey Regiment (now the 23d London Regiment) and formerly held commissioned rank in the Royal Engineers.

When King Edward VII made his Indian tour (as Prince of Wales) in 1875–6, Captain Wright was selected to accompany the Royal party in a secretarial capacity, and one of his cherished possessions was a silver medallion commemorating that tour, which King Edward himself presented to him.

In 1890 he left England and, after some years of practice in San Francisco, he formed a partnership with Willis Polk; then later L. C. Mullgardt became associated with them. Early in 1906 the partnership was dissolved, and at this period came the great fire which brought disaster to the city, also great opportunities to the architect. The firm of Wright, Rushforth & Cahill was then formed and continued until 1913, since which time it has been Wright & Rushforth.

It may be said, in reviewing Mr. Wright's achievements, that his specialty was construction rather than designing, and in that he was unsurpassed. His grasp of the contents of plans preparatory to specifying and rendering estimates was most remarkable.

He was the architect of the manufacturing plant of W. P. Fuller & Co., at south San Francisco, and superintended the erection of the Hayward Building (now Kohl Building). He also participated in the designing and erection of numerous buildings in and around San Francisco, one of the most recent being the Hotel Whitcomb, one of several buildings erected for the Whitcomb Estate.

He was a hard worker, energetic and progressive, ever desirous of elevating the ethical standards of his profession. He was for twenty years or more tireless in his efforts to bring about a betterment of the existing conditions in estimating and contracting. He was the pioneer in this country for the adoption of the "Quantity System" and the author of several publications on the subject, also the book "Wright on Building Arbitrations."

In 1914, touring the eastern states, lecturing upon this subject before the General Contractors' and Architectural Associations, he did much to awaken the interest of these bodies to the necessity of establishing a standard quantity system, and it is largely through this and his publications on the subject that it is now being used in some municipal and government work in eastern cities.

The General Contractors' Association of San Francisco, in recognition of his voluntary endeavors to bring about these results, elected him to be their first "honorary member."

Those who knew Mr. Wright intimately recognized his sterling qualities, his genial, kindly nature. He advocated always a "square deal" between owner and contractor, and would never allow himself to be the recipient of any favor which might place him under obligation to the disadvantage of his client.

The last few months of his life were devoted to a philanthropic effort to provide a convalescent home and housing accommodations (for returning invalided soldiers and sailors of British birth, now serving with either the American or British forces), to be called the Victoria Memorial; and for this object he and Mrs. Wright deeded to a Board of Trustees, on January 29, 1918, about forty acres of beautiful wooded land in Napa Valley, and it was while at the point of perfecting the organization of the governing body that his life was suddenly brought to a close.

GEORGE RUSHFORTH.

Structural Service Department

D. KNICKERBACKER BOYD, *Associate Editor*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:

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LYMAN A. FORD . . . . . New York

QUANTITY SYSTEM

SULLIVAN W. JONES, *Chairman*, Washington, D. C.

*(Each Chapter has a corresponding member who is chairman of the Chapter Subcommittee.)

CONTENTS

TIMBER, LUMBER, WOOD CONSTRUCTION, AND FINISH

The Index below will sufficiently explain the sequence whereby wood is considered, first as standing timber, and taken up by progressive stages from its management and utilization under governmental direction through its manufacture, treatment, use, and finish in building construction.

The description of wood and its utilization completes the shell of the composite building with which this Department is concerned and provides for much of the interior finish. Fittings, furniture and movable features, whether of wood or metal, will be treated in later issues.

The next Serial, No. 5, will deal entirely with the subject of Fire Prevention and Protection, as applicable to all forms of construction, and from then on several issues will deal with separate features of mechanical equipment.

SERIAL NO. 4, APRIL, 1918

INDEX TO SUBJECTS TREATED IN THIS ISSUE

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Governmental Activities, Associations, and Other Bodies 4A

United States Department of Agriculture, Forest Service. 4A1

Forester, Henry S. Graves, 928 F Street, Washington, D. C.
Forest Products Laboratory, Madison, Wis.

Publications: (Listed under each appropriate subdivision.)

(*a*) Department of Agriculture **Yearbook.**
(*b*) **Annual Report** of the Forester.
(*c*) **Professional Papers.** Published as Bulletins of the Department.
(*d*) **Farmers' Bulletins** (also contributed by other divisions of the Department of Agriculture).
(*e*) Contributions to the *Journal of Agricultural Research.* For sale only by the Superintendent of Documents, Government Printing Office, Washington, and to be found in libraries of agricultural colleges, universities, technical schools, and other institutions.
(*f*) **Yearbook Separates.**
(*g*) **Reports.** Contributions from the Forest Service.
(*h*) **Miscellaneous publications.**

Of the above (*b*), (*c*), (*d*) and (*f*) are in stock, to a limited number, single copies of which will be distributed free upon request to the Division of Publications, Department of Agriculture, Washington, D. C. The *Yearbook* can be obtained free only through Congressmen. Copies are sold by the Superintendent of Documents.

(*j*) Much of the information obtained through the researches of the Service is published in various trade and technical journals. Lists of such articles, a great many of which are included under 4B1*h*, may be had from the Forest Service, Washington, D. C., or the Director, Forest Products Laboratory, Madison, Wis.
(*k*) The Department of Agriculture issues monthly a **list of all new publications** of the Department. This list may be had upon application to the Division of Publications, Department of Agriculture, Washington, D. C. Lists of those publications of

the Forest Service which are still in print, but are no longer for free distribution, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. (Price-list 43 is kept up to date by periodical revision.)

(*l*) In addition to the above series, there were formerly published a series of *Forest Service Bulletins* and a series of *Forest Service Circulars*, some of which are still in print, and are available for free distribution; others obtainable only through the Superintendent of Documents.

(*m*) Many publications, now out of print, are not listed by the Superintendent of Documents and may be seen only in public or technical libraries. These are contained in a mimeographed list of all publications obtainable from the Forest Service.

Purposes:

The work of the Forest Service consists of the administration and protection of the National Forests, the development and utilization of their resources, and research into technical problems connected with forestry; also the discovery and dissemination of knowledge concerning the best uses of forest products.

From the descriptive matter furnished by the Forest Service for publication in the Structural Service Book, Vol. I, and again reviewed this year by Mr. H. S. Betts, the following is quoted:

Statistical studies covering the manufacturing of lumber, markets, and uses, are made by the Office of Industrial Investigations at Washington, D. C., and studies relating to the properties of wood, its protection against fire and decay, and its proper use in construction of all kinds are made at the Forest Products Laboratory, Madison, Wis.

Investigations at the laboratory have resulted in the design of a kiln in which it has been possible to overcome many of the difficulties met with in common practice. The kiln has been patented and dedicated to the public.

It is the policy of the Forest Service to undertake any investigative work pertaining to the use of forest products, provided the problem is of general interest, and it seeks at all times to secure the coöperation of the various associations affected.

The National Lumber Manufacturers Association. 4A2

Acting Secretary: John Lind, 11 South La Salle St., Chicago, Ill.

Publications: (listed under each appropriate subdivision.)

(*a*) **Rural Architecture**, (*b*) **Engineering Bulletins**, (*c*) **Better Buildings**, (*d*) **Technical letters**, (*e*) **Miscellaneous publications.** (*f*) Arrangements have been made with the publisher, the Radford Architectural Company, Chicago, for a special handbook edition of the 400-page volume entitled **"Lumber and Its Uses"** which, on behalf of the National Lumber Manufacturers Association, will be supplied by the publisher at $2 per copy. (Revised Edition now on the press.) This volume deals in a broad way with the properties and commercial uses of all the principal American woods. Any of these, with the exception of (*f*) will be furnished without charge to qualified inquirers.

Purposes:

Is a federation of the principal associations of lumber manufacturers throughout the United States, whose purposes, as set forth in its charter, are to

"Gather and disseminate information upon the production and shipments of lumber, market conditions, and the supply of forest products; to make technical and other investigations of the properties and uses of woods; to promote uniformity and efficiency in the methods of manufacturing and distributing lumber and allied products . . . and to promote the use of forest products by all lawful means."

The organizations affiliated with the National Lumber Manufacturers Association, and the kinds of timber chiefly handled by them are indicated in the list given under 4A3.

The National Lumber Manufacturers Association maintains an engineering bureau, the services of which are freely available for advice and suggestions as to the use of wood for all structural purposes.

This has been established as a clearing-house of authoritative information on wood for all of its numerously great adaptabilities.

It aims to coöperate with architects, engineers, builders, and others by furnishing upon the basis of the best engineering and architectural practice in wood construction all latest available data, and assisting them and the lumber-consuming public in receiving the greatest economic benefit from the proper application of wood.

Other Lumber and Allied Associations. 4A3

Among such there are (not including those interested in other than structural products) the following, those marked * being affiliated with the National Lumber Manufacturers Association. Immediately after the name of each follows the kinds of lumber chiefly handled.

(*a*) ******West Coast Lumbermen's Association*, Seattle, Wash.
Douglas Fir, Western Red Cedar, Spruce, Hemlock.

(*b*) ******Georgia-Florida Sawmill Association*, Jacksonville, Fla.
Southern Yellow Pine.

(*c*) ******The Hardwood Manufacturers' Association of the United States*, Cincinnati, Ohio.
Ash, Basswood, Beech, Buckeye, Butternut, Cherry, Chestnut, Cottonwood, Elm, Gum, Hickory, Maple, Oak, Walnut, Poplar, Sycamore, Tupelo.

(*d*) ******Michigan Hardwood Manufacturers' Association*, Cadillac, Mich.
Ash, Basswood, Beech, Birch, Elm, Maple, Hemlock.

(*e*) ******Northern Hemlock and Hardwood Manufacturers' Association*, Oshkosh, Wis.
Hemlock, Ash, Basswood, Birch, Elm, Maple, White Cedar, Tamarack.

(*f*) ******California Redwood Association*, San Francisco, Cal.
Redwood.

(*g*) ******The Southern Cypress Manufacturers' Association*, New Orleans.
Cypress, Tupelo.

(*h*) ******California White and Sugar Pine Association*, San Francisco, Calif.
Sugar Pine, California White Pine.

(*j*) ******North Carolina Pine Association*, Norfolk, Va.
North Carolina Pine.

(*k*) ******Northern Pine Manufacturers' Association*, Minneapolis, Minn.
White Pine, Norway Pine, Spruce, Tamarack.

(*l*) ******Southern Pine Association*, New Orleans, La.
Southern Yellow Pine.

(*m*) ******Western Pine Manufacturers' Association*, Portland, Ore.
Western Pine, Idaho White Pine, Fir, Larch.

(*n*) ******Western Forestry and Conservation Association*, Portland, Ore.

(*o*) *Arkansas Soft Pine Bureau*, Little Rock, Ark.

(*p*) *White Pine Bureau*, St. Paul, Minn.

(*q*) *National Hardwood Lumber Association*, Chicago, Ill.

(*r*) *American Hardwood Manufacturers Association*, Memphis, Tenn. (This comprises the former Gum Lumber and American Oak Manufacturers Associations, now combined.)

(*s*) *Eastern Lumbermen's Association*, Bangor, Maine.

(*t*) *Hardwood Dimension Manufacturers' Association*, Arlington, Ky.

(*u*) *Hemlock Manufacturers' Promotion Bureau*, Oshkosh, Wis.

(*v*) *Mountain Lumber Manufacturers' Association*, Nelson, B. C.

(*w*) *White Cedar Shingle Association*, Oshkosh, Wis.

(*x*) *The Birch Manufacturers' Promotion Bureau*, Oshkosh, Wis.

Other Associations Concerned with Wood Problems and Products. 4A4

Among such are the following, exclusive again of those with interests outside of building construction, and not including all of those interested in furniture manufacture:

(*a*) *American Wood-Preservers' Association*, Baltimore, Md.

(*b*) *Association of Creosoting Companies of the Pacific Coast*, Seattle, Wash.

(*c*) *Creosoted Wood Block Paving Bureau*, Chicago, Ill.

(*d*) *Northern White Cedar Shingle Manufacturers' Association*, Oshkosh, Wis.

(*e*) *Redwood Shingle Association*, Eureka, Calif.

(*f*) *Shingle Branch, West Coast Lumbermen's Association*, Seattle, Wash.

(*g*) *Maple Flooring Manufacturers' Association*, Chicago, Ill.

(*h*) *Oak Flooring Manufacturers Association*, Cincinnati, Ohio.

(*j*) *Eastern Sash, Door, and Blind Manufacturers' Association*, Holmesburgh, Philadelphia, Pa.

(*k*) *Millwork Cost Information Bureau*, Chicago, Ill.

(*l*) *Southern Sash, Door, and Millwork Manufacturers Association*, Atlanta, Ga.

(*m*) *Curtis Service Bureau*, Clinton, Iowa.

(*n*) *Building Industries Association*, St. Louis, Mo.

(*o*) *National Veneer and Panel Manufacturers' Association*, Indianapolis, Ind.

(*p*) *Commercial Rotary Gum Association*, Memphis, Tenn.

The two following organizations are affiliated Internationals of the American Federation of Labor (Building Trades Department) listed in the Structural Service Book, Vol. I, under 12J:

(*q*) *United Brotherhood of Carpenters and Joiners.*
Secretary: Frank Duffy, Carpenters' Bldg., Indianapolis, Ind.

(*r*) *International Union of Wood, Wire, and Metal Lathers.*
Secretary: R. V. Brandt, Superior Building, Cleveland, Ohio.

In addition to which, representing artisans and others engaged in some of the wood industries, there is record of:

(*s*) *Wood Carvers' and Modellers' Association*, Philadelphia, Pa.

(*t*) *International Wood Carvers' Association of North America.*

Educational Research and Wood Utilization Service. 4A5

The Forest Service, U. S. Department of Agriculture, furnishes **lists of colleges and schools** with (*a*) ranger courses in forestry, (*b*) courses in forestry other than ranger, (*c*) courses leading to a degree in forestry; of these some provide facilities for investigation, research, and testing, as mentioned under 1A1, and others, as in the case of the University of Illinois, maintain engineering experiment stations and issue bulletins and circulars 3H2c, and one, the University of Wisconsin, at Madison

maintains close coöperative relations with the Forest Products Laboratory. At this University, in addition to the courses (*b*), a number of special lectures are given in various departments by members of the Forest Products Laboratory staff, and opportunities are also offered in these Laboratories for research work. One, the New York State College of Forestry, at Syracuse, maintains a Correspondence Course in "Lumber and Its Uses" which is a part of the Wood Utilization Service.

State Wood-Using Industry Reports. 4A5a

The Forest Service, U. S. Department of Agriculture, through the Office of Industrial Investigations, has completed **studies of wood-using industries** in a number of states.

The reports have been printed by some department of the government of the state interested, or by a periodical devoted to the interest of lumbering and conservation. **Bulletins** available with the name and address of the coöperator will be found listed in the Structural Service Book, Vol. I, under 5C.

Standing Timber and Manufactured Lumber in General. 4B

Closely allied to this subdivision is that on "Uses of Wood in Building Construction" (4E) where the publications pertaining to specific uses in buildings are separated as well as possible from those here described, which deal more with the product, its source and general uses.

Publications and Articles: U. S. Department of Agriculture, Forest Service, Washington, D. C., and Forest Products Laboratory, Madison, Wis. 4B1

The Forest Service, U. S. Department of Agriculture, the purposes and activities of which are briefly outlined under 4A1 issues a large number of publications pertaining to the silvicultural end of the work—that is the planting, growing and management of trees in forests—and other publications relating to the supply and general uses of woods in specified areas. Consult list of publications to be had, as mentioned under 4A1*k*.

In the Structural Service Book Vol. I, under 5D1, will be found a list of other publications of interest structurally. Those which follow, issued since then, are given Department numbers and can be obtained only from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the price stated. Remittances should be made by money order or in coin (at sender's risk). Stamps cannot be accepted.

(*a*) *Professional Papers—Agriculture Bulletins.* (4A1*c*.)

474—**True Mahogany**, C. D. Mell. 1917. 24 pp.; illus. 5 cents.

497—**Tests of Western Yellow Pine** Car Sills, Joists, and Small Clear Pieces, C. W. Zimmerman. 1917. 16 pp.; illus. 5 cents.

509—**The Theory of Drying** and its Application to the New Humidity-regulated and Recirculating Dry Kiln, H. D. Tiemann. 1917. 28 pp.; illus. 5 cents.

523—**Utilization of Ash**, W. D. Sterrett. 1917. 52 pp.; illus. 5 cents.

552—**The Seasoning of Wood**, H. S. Betts. 1917. 28 pp.; illus. 10 cents.

556—**Mechanical Properties of Woods** Grown in the United States, J. A. Newlin and T. R. C. Wilson. 1917. 47 pp.; illus. 10 cents.

(*b*) *Farmers' Bulletins.* (4A1*d*.)

786—**The Windbreak as a Farm Asset**, C. G. Bates. 1917.

(*c*) *Reports: Contributions from Forest Service.* (4A1*g*.)

114—**Some Public and Economic Aspects of the Lumber Industry**, W. B. Greeley. 1917. 100 pp.; illus. 25 cents. (Extracts of this report printed in *The American Contractor*, April 14, 1917.)

116—**The Distribution of Softwood Lumber in the Middle West** (Retail), O. M. Butler. 1918. 100 pp.; illus. 15 cts.

117—**The Substitution for Other Materials for Wood**, Rolf Thelen. 1917. 78 pp.; illus. 15 cents. (For brief description, see Structural Service Book, Vol. I, under 11D.)

Government Statistics and Specifications. 4B2

(*a*) *Statistics of the Lumber Industry.*

These were formerly covered in publications, entitled "*Forest Products*," issued by the Department of Commerce, Bureau of the Census, compiled in coöperation with the Department of Agriculture, Forest Service.

Annual statistics of the production of **lumber, lath, shingles**, and other forest products are now obtained by the Forest Service and are published as U. S. Department of Agriculture Bulletins, forming a part of this regular series. The latest lumber, lath, and shingle statistics will be found in Agriculture Bulletin 673, entitled "*The Production of Lumber, Lath, and Shingles in 1916.*" Copies of this may be obtained from the Division of Publications, Forest Service.

(*b*) *Specifications Issued by the Navy Department.*

The Navy Department issues specifications, those pertaining to wood being under Serial Designation No. 39, and covering among others the following kinds: **Beech, Birch and Maple; Butternut; White Cedar; Douglas Fir; Puget Sound or Oregon Pine; Oak; White Oak Timber; White Pine; New England Country White Pine; Western White Pine** (Idaho); **Tonawanda White Pine**, inspection rules for; **Yellow Pine** for decking, lumber, timber, and sticks for masts and spars; **Spruce and Teak.**

(*c*) *Specifications of the War Department and Treasury Department (Supervising Architect's Office).*

The portions of such specifications with respect to lumber and woodworking are not separately issued, nor are they available for general distribution to others than those having a special interest in phases of the work for which prepared. While some of these, relating especially to timber construction, are mentioned in this Serial Number, complete listings may be had upon application to the Journal, except for construction of cantonments and other structures incident to war activities. Lists of public buildings being estimated upon and under contract will be found in *The Journal of the Society of Constructors of Federal Buildings* (1A2*d*1).

Activities, Standards, Specifications, Inspection, and Grading Rules, Manuals and Other Publications of Technical Societies, Lumber and Other Associations. 4B3

(*a*) *American Society for Testing Materials* (1A5*c*). This society has a **Committee, D7 on Timber**, the *Chairman* of which is Herman von Schrenk, of St. Louis, Mo. For reports, see the *Proceedings of the A.S.T.M.* for each year, and for brief description of activities, see Structural Service Book, Vol. I, under 5A2.

1. "**Standard Definitions of Terms Relating to Structural Timber.**" Book of Standards, 1916, pp. 598–601. (Serial Designation D 9–15.)

2. "**Standard Specifications for Yellow-Pine Bridge and Trestle Timbers.**" Book of Standards, 1916, pp. 515–518. (Serial Designation D 10–15.)

3. Tentative specifications for "**Selected Structural Douglas Fir Bridge and Trestle Timbers.**" Proceedings, 1916, pp. 479–482. (Serial Designation D23–16T.)

4. For other methods of tests, specifications, and tentative standards recommended by this Committee, see Treatments of Woods (4C1*b*).

(*b*) *American Railway Engineering Association* (1A2*c*). There exists in this Society a Committee on **Grading of Lumber**, the *Chairman* of which is Herman von Schrenk, of St. Louis, and the activities of which were briefly described in the Structural Service Book, Vol. I, under 5A2.

1. "**Grading of Lumber.**" Adopted report of committee, completely illustrated with photographic reproductions of knots, streaks, holes and conditions, sound and otherwise, containing:

(*a*) **Classification and Grading Rules for Douglas Fir.**
(*b*) **Classification, Grading Rules and Dressing Rules for Southern Yellow Pine.**
(*c*) **Specifications for Construction Oak Timbers.**
(*d*) **Classification and Grading Rules for Cypress Lumber and Shingles.**

2. "**Wooden Bridges and Trestles.**"

(*c*) *National Board of Fire Underwriters:*

1. "**Grading Rules for Timber.**" *Building Code, 1915*, pp. 278–283. These are printed as an appendix to the Code and comprise "a proposed revised form of Rules of the U. S. Forest Service for Grading Structural Timbers of Southern Yellow Pine."

(*d*) *Inspection Department, Associated Factory Mutual Fire Insurance Companies:*

1. "**Longleaf Pine Factory Timber.**"

2. "**Dry Rot in Factory Timbers.**" 1915. 107 pp.; illus. Contains specifications suggested for a special grade of longleaf pine for use in Mutual factories.

(*e*) *National Lumber Manufacturers Association:*

1. "**Timber for Structural Purposes**" (4E3*m*1a).

(*f*) *National Hardwood Lumber Association:*

1. See "**Rules for the Measurement and Inspection of Hardwood Lumber.**"

(*g*) *The Hardwood Manufacturers' Association of the United States:*
1. "Association Standard Grades of **Poplar, Oak, Cottonwood, Gum and other Hardwoods.**" Effective March 1, 1917. 118 pp.

(*h*) *Northern Hemlock and Hardwood Manufacturers' Association:*
1. "Rules for the Inspection of **Hemlock** Lumber," 27 pp. Includes Standard Sizes adopted October 29, 1913.

(*j*) *Northern Pine Manufacturers' Association:*
1. "Rules for the Grading of **Northern Pine, Spruce and Tamarack** Lumber." February 1, 1915 (ninth issue). 72 pp.

(*k*) *The Oregon Lumber Manufacturers' Association:* (Since merged with the West Coast Lumber Manufacturers' Association.)
1. "**Merits of Pacific Coast Woods,**" E. D. Kingsley.

(*l*) *Southern Pine Association:*
1. "**Southern Yellow Pine Timbers,** Including Definition of the 'Density Rule.'". Jan. 1, 1917. 22 pp.
2. The information contained in the above is also printed on pp. 1–10 of the pamphlet entitled "**Southern Yellow Pine Timbers, Including Definition of the 'Density Rule,**' Adopted and Copyrighted by the American Society for Testing Materials, Approved and Adopted by the Southern Pine Association, January, 1917." This pamphlet also contains:
(*a*) Extracts from Report of Committee D-7 of the A.S.T.M., on "**Standard Specifications for Timber,**" pp. 11–14.
(*b*) "Discussion of the **Proposed Forest Service Rules** for Grading the Strength of Southern Pine Structural Timbers," H. S. Betts. Appendix I, pp. 15–30.
(*c*) "**Southern Yellow Pine Timber and Density Grading Rules,**" O. T. Swan. Appendix II, pp. 31–47.
3. "**Southern Yellow Pine Bridge and Trestle Timbers,** for Railway Structures, including definition of the New 'Density Rule.'" Jan. 1, 1917. 13 pp.
4. "**Standard Specifications for Grades of Southern Yellow Pine Lumber.**" April 1, 1917. 58 pp. "Mills of manufacturers subscribing to this Association are located in the states of Texas, Arkansas, Missouri, Louisiana, Mississippi, Alabama, Georgia, and Florida."
Contains specifications for **dimension timbers, siding, fencing, ceiling, flooring, roofing and Byrkit lath,** with full-sized detailed and figured drawings.
5. "The **Gulf Coast Classification** of Pitch Pine Resawn Lumber and Sawn Timber." Revised May, 1910. Adopted by the Southern Pine Association 1915. 28 pp.
6. "**Service in the Department of Inspection and Grades.**" 1917. Describes in detail the functions.
7. "**Southern Pine Manual: Standard Wood Construction**" (4E3*n*1) "Grades of Timbers," pp. 114–117.
8. The **Relation of Resin** to the lasting qualities of Southern Pine, 1917. Reprint from the *Annals of the Missouri Botanical Garden* by Sanford M. Zeller.
9. For further references to **Southern Pine** see Industrial Section, pp. xix, xxvi, Southern Pine Association.

(*m*) *West Coast Lumbermen's Association:*
1. "The Lumber Users' Guide" (No. 8), a general description of **Douglas fir.**
2. "The Lumber Users' Guide" (No. 12), a general description of **western red cedar.** 22 pp.; illus.
3. "Not the Non-Use but the Proper Use of Wood," a description of **fire-tests** made. 18 pp.; illus.
4. "**Comparative Strength Values for Structural Timbers.**"
5. "**Structural Timber Handbook on Pacific Coast Woods**" (4E3*p*1) contains "Grading Rules."

(*n*) *California Redwood Association:*
1. "**California Redwood** Lives Forever." Leaflet. 8 pp.
2. "Two Births 2,000 Years Ago—The Marvel God Wrought with the **Redwoods of California.**" Booklet. 12 pp.; illus.
3. "**Redwood for the Engineer.**"
4. "**Mechanical Properties of Redwood.**"

(*o*) *The North Carolina Pine Association:*
1. "Official Inspection Rules," Jan. 25, 1917, 24 pp., covering kiln-dried **North Carolina Pine** (revised 1917), **Longleaf Pine** (1905 Rules), Air-Dried North Carolina Pine (1913 Rules), **Shortleaf Pine** Dimensions (1910 Rules). It is stated that "at the present time fully 95 per cent of the output of pine lumber in the states of Maryland, Virginia, North and South Carolina is graded and classified according to these grading rules, and all quotations are made on them as a basis."

(*p*) *Southern Cypress Manufacturers' Association:*
1. Issues a "**Cypress Pocket Library**" consisting of 41 volumes, each of which describes different features and uses of this wood. In No. 1, entitled "What It Is," is also an Index to all others.

(*q*) *White Pine Bureau:*
1. "Classified Recommended Uses for White Pine in House Construction and White Pine Standard." (4E3*q*3).

Handbooks, Articles and Other References 4B4

See, also, more extended list pertaining to "Uses of Wood in Building Construction" (4E).

(*a*) *American Forestry* publishes each month a list of titles, authors, and prices of **books on forestry** and related subjects.

(*b*) See "**Lumber and Its Uses**" (4A2*f*) described under 5D5*c*, 1917.

(*c*) "**Seasoning of Wood,**" Joseph B. Wagner. 1917. 250 pp.; illus. Contains chapters on: Timber; Coniferous Trees; Broad-leaved Trees; Grain, Color, Odor, Weight, and Figure in Wood; Enemies of Wood; Water in Wood; What Seasoning Is; Advantages of Seasoning; Difficulties of Drying Wood; How Wood Is Seasoned; Kiln-drying of Wood; Types of Dry Kilns; Dry Kiln Specialties; Helpful Appliances in Kiln-drying.

(*d*) See "*Building Construction and Superintendence,*" F. E. Kidder. 1915. Part II, "**Carpenters' Work.**"

(*e*) "*Mechanical Engineers' Handbook,*" Lionel S. Marks. 1916.
1. "**General Properties of Wood,**" H. von Schrenk.
2. "**Strength of Wood,**" W. K. Hatt.

(*f*) The Building Trades' Handbook gives: **Weights, Descriptions, Shrinkage,** and **Qualities of Timber.**

(*g*) "**Identification of the Economic Woods of the U. S.,**" S. J. Record.

(*h*) "**The Manufacture and Uses of Cypress.**" An illustrated address by H. von Schrenk.

(*j*) "**Violet Wood** of Commerce," *The American Architect,* March, 1914, p. 96; illus.

(*k*) "**Southern Cypress,**" S. J. Record, *American Architect,* Oct. 18, 1916. Descriptive article; illus.

(*l*) "The Strength of Long-Seasoned **Douglas Fir and Redwood,**" Arthur C. Alvarex. May 17, 1913. University of California.

(*m*) "**One Thousand Uses for Oak,**" to be had from Oak Information Bureau of *Hardwood Record,* Chicago.

(*n*) See "**American Forest Trees.**" *Hardwood Record.*

(*o*) See "**Principal Species of Wood**—Their Characteristic Properties," Charles Henry Snow. 1908.

(*p*) See "**Timber and Timber Trees,**" T. Haslett and H. M. Ward. 1894.

(*q*) See Index to *Lefax Data Sheets* for information on these subjects.

(*r*) *Journal of Society of Constructors of Federal Buildings:*
1. "**What is a Plank?**" C. E. Morrell, Jr. November, 1914.
2. "**Inspection of Yellow Pine,**" Hermann von Schrenk, March, 1916.

Branding of Timbers and Lumber. 4B5

This subject is being given greater attention than ever by associations, societies, and manufacturers, and is of interest and importance to architects, builders, and general consumers. In addition to being treated within some of the publications mentioned elsewhere, in this Serial Number and in the Structural Service Book, Vol. I, under 5D6 and in a Reprint of the 1917 Serial No. 5 issued by the National Lumber Manufacturers Association, it is of further interest to note the following:

(*a*) The paragraphs for use in architects' specifications with respect to southern yellow pine, given in the *Architects' and Builders' Handbook of the Illinois Society of Architects,* referred to under 4E3*l*, provide for **branding** in accordance with official requirements of the Southern Pine Association, and make a proviso that, in lieu of such branding, contractors may furnish lumber under a certificate from the *Inspection Department* of that Association, showing that the material complies with the architects' specifications.

(*b*) *The Southern Cypress Manufacturers' Association* states that it is now **branding, by burning** ineradicably on one or both ends, every cypress board or timber and every bundle of "small sticks" such as flooring, siding, moulding and shingles, with the registered trade-mark of the Association, indicating that the wood is genuine "Tidewater" Cypress.

(*c*) *The Oak Flooring Manufacturers' Association* states that every bundle of oak flooring manufactured is **designated** on the back by rubber stamps with the names of the **grades** as well as the **color.**

Standardization and Conservation. 4B6

These comments, of course, are quite independent of any reference made elsewhere to the important work along these lines being done by the Forest Service and the Committees and Associations which coöperate with it, more detailed references to which are given in the Structural Service Book, Vol. I, under 5D7.

(*a*) In the "*Standard Specifications for Grades of Southern Yellow Pine Lumber,*" issued by the Southern Pine Association, 1917, it is stated, with respect to grading of flooring: "The percentage of **short lengths** is customary, and in the interest of **conservation** will be included, so far as practicable, in all shipments of mixed lengths."

(*b*) See "*Grading Rules*" of the Maple Flooring Manufacturers' Association (4E8*j*1) in which it is stated that modern perfected methods of manufacturing flooring produce a larger proportion of **shorter lengths** because the **defects are cut out closer** and that the senti-

ment in favor of **conservation** is strongly in favor of this utilization of wood to the greatest extent possible.

(*c*) *The Oak Flooring Manufacturers' Association* states that it has standardized its products in regard to **thicknesses and widths**, ¹³⁄₁₆-inch and ⅜-inch thicknesses being known as standard grades.

(*d*) The American Railway Engineering Association (1A2*c*) maintains a **Committee on Conservation of Timber Supply.**

Treatments of Woods. 4C

Preservatives and Fire-Retardants. 4C1

As of further interest in connection with materials used in treating woods, see Structural Service Book, Vol. I, Serial No. 12, under "D—**Wood Preservatives, Shingle Treatments and Fire-Retardants,**" which subjects will be covered later in Serial No. 12 of this Volume.

(*a*) *Forest Service, U. S. Department of Agriculture:* Concerning **preservatives** and **fire-retardants** the *Forest Service* prepared a statement published in the Structural Service Book, Vol. I, from which the following is quoted:

Tests have been made on more than thirty wood preservatives, including creosotes and various salt solutions, to determine their ability to check the growth of fungus, their ability to penetrate wood, their effect on the strength of the wood, and their permanence. The preservative represents from 50 to 75 per cent of the cost of treatment. This is particularly true of the creosotes, necessitating their careful analysis and grading, and Forest Service investigations have aided materially in establishing standards in commercial practice.

Investigations have been made along two lines in developing a fire-retardant—impregnation and surface painting. A fire-test house has been built in which it is possible to approximate office building conditions, and a number of demonstrations have been made. The *Forest Service* has in this way been able to assist the *National Fire Protection Association* in developing specifications for wood in fire-resistant construction. A patent has been granted, and dedicated to the public, covering a method of treating wood and fibrous materials to make them fire-resistant.

Among the **Forest Service publications** of interest in the above connections are those described under 5E1 in Serial No. 5, 1917, and in the Structural Service Book, Vol. I, to which the following should be added:

1. **The Preservative Treatment of Farm Timbers.** 1916. 32 pp.; illus. (Farmers' Bulletin No. 744.) 5 cents.

(*b*) *American Society for Testing Materials:*
1. See Reports of Subcommittee VI on **Timber Preservatives.**
2. See "Tentative Specifications for Southern Yellow Pine **Timber to be Creosoted,**" (Serial designation D24–15T.)
3. See "Tentative Specifications for Southern Yellow Pine **Piles and Poles to be Creosoted.**" (Serial Designation D25–15T.)
4. Tentative Methods for Analysis of **Creosote Oil.** (Serial Designation D38–17T.)
5. Standard Methods for Sampling and Analysis of **Creosote Oil.** (Serial Designation D 38–17.)

(*c*) *American Railway Engineering Association:*
1. **"Wood Preservation."** Adopted Report of Committee, with specifications and illustrations, pp. 539–557. Manual, 1915.

(*d*) *National Fire Protection Association:*
1. "Uses of Wood in Building Construction." Committee Report. Data of tests on inflammability of **untreated wood** and of wood treated with **fire-retarding compounds.** 55 pp.; illus. Also in Proceedings, 1915, pp. 106–158.

(*e*) *Inspection Department, Associated Factory Mutual Fire Insurance Companies:*
1. See "Dry Rot in Factory Timbers," chapters on **"Chemical Treatments to Prevent Rot,"** and **"Penetration of Antiseptics."**

(*f*) See *"Tests of Timber Beams"* (4E3*k*2), contains information on **"Treated Timbers."**

(*g*) *National Lumber Manufacturers Association:*
1. **"Tests of Fire Retardants,** with special reference to the **Shingle Roof,"** Herman von Schrenk and Arnold von Schrenk. Technical Letter No. 2. May 27, 1916.
2. "Preliminary Report on Tests with **Fire-Retardant Compounds** on Wood," Hermann von Schrenk and Arnold von Schrenk. Proceedings, 1916, pp. 96–117; illus.
3. See sections on **"Fire Retardants"** and **"Wood Preservation"** in "Timber for Structural Purposes" (4E3*m*1*a*).
4. See Farm Bulletin entitled "The **Preservative Treatment** of Farm Timbers."
5. See other publications referred to under (4D10) (Piling).

(*h*) *American Wood Preservers' Association:*
1. Annual Reports contain many authoritative and helpful papers upon methods of **protecting timbers from decay.**

(*j*) *Southern Pine Association:*
1. "Southern Pine Manual—Standard Wood Construction," 1917 (4E3*m*1), contains information on **"Creosoting."**

(*k*) *California Redwood Association:*
1. **"The Test by Fire."** Leaflet on California redwood; illus.

(*l*) *West Coast Lumbermen's Association:*
1. "Structural Timber Handbook on Pacific Coast Woods," 1916 (4E3*p*1), contains **"Creosoting Douglas Fir."**

(*m*) *Association of Creosoting Companies of the Pacific Coast:*
1. **"Creosoting Douglas Fir** Bridge Stringers and Ties without Loss in Strength," 1916, 27 pp.; tables, and illustrations.

(*n*) See **"Preservation of Structural Timbers,"** Howard F. Weiss. 1915.

(*o*) *"Mechanical Engineers' Handbook,"* Lionel S. Marks. 1916.
1. **"Timber Preservation,"** H. von Schrenk, pp. 580–583.

(*p*) *"Building Construction and Superintendence:"* Part II, Carpenters' Work, F. E. Kidder. 1915.
1. **"Methods of Preserving Timber,"** pp. 35–37.

(*q*) *Fire Prevention and Fire Protection,"* J. K. Freitag.
1. **"Fireproof Wood,"** pp. 260–262.

(*r*) *Journal of the Society of Constructors of Federal Buildings:*
1. **"Preservative Treatment of Structural Timber and Piles,"** H. G. Richey, April, 1917, pp. 194–206.

(*s*) *Trautwine's Civil Engineer's Pocket-Book:*
1. **Preservation of Timber,** pp. 954–957.

(*t*) *"Lumber and Its Uses"* (4A2*f*):
1. Section on **"Wood Preservation"** describes prevention of decay, and brush, pressure, and open-tank methods of treatment.
2. **"Fire-Resistance"** describes "fireproofing" processes and fire-retardant paints.

(*u*) See Index to *Lefax Data Sheets* for information on these subjects.

Treated Wood Flooring and Paving. 4C2

In addition to being treated in many of the publications listed under 4C1, references to **Treated Wood Flooring and Paving** will be found in the *Structural Service Book*, Vol. I, under 5E2. A further list has been prepared which will be furnished upon request to the Journal.

Piling, Piers and Bulkheads. 4D

(These subjects will be found, also, described in many of the publications referred to under other headings, especially 4C1.)

1. *Forest Service, U. S. Department of Agriculture:*
   (*a*) **Preservation of Piling** Against Marine Wood Borers. 1908. 15 pp.; illus. (Forest Circular No. 128.) 5 cents.
2. Specifications issued by *District Engineer, War Department,* New Orleans, **"Piles, Wallings, Lumber, and Bulkheads"** for Southwest Pass, Mississippi River, January 16, 1917. (See 4B2*c*.)
3. See tentative specifications of A.S.T.M. for Southern Yellow Pine **Piles and Poles** to be creosoted. (4C1*b*3).
4. *American Railway Engineering Association:*
   (*a*) "Wooden Bridges and Trestles." Report of Committee in "Manual," contains sections on **piles and pile-driving,** with **principles of practice** and **specifications.**
5. See *Proceedings of the American Society of Civil Engineers.*
6. See index, *Journal, American Society of Mechanical Engineers.*
7. See index to the *Journal of the Western Society of Engineers.*
8. See Index to *Lefax Data Sheets.*
9. *National Board of Fire Underwriters:*
   (*a*) "Building Code," 1915. See Section 19, **"Wooden Piles."**
10. *National Lumber Manufacturers Association:*
   (*a*) "Chicago's Four Million Dollar **Pier."** Technical Letter No. 3, 1916. Reprint from *Lumber World Review,* May 10, 1916.
   (*b*) "Interesting Comparison of **Two Docks** Recently Constructed in the City of Chicago, Illinois." Technical Letter No. 7, 1916.
   (*c*) "Timber in **Pier and Wharf Construction."** Technical Letter No. 9, 1916.
11. *Journal, Society of Constructors of Federal Buildings:*
   (*a*) **"Pile Foundations,"** William S. Van Loan. November, 1914.
   (*b*) **"Pile Tests** at the Site of the Boston Appraisers' Stores," William N. Collier. September, 1915.
   (*c*) **"Test Piles,"** Ernest G. Schurig. November, 1915.
12. See *Kidder's Pocket-Book,* 1916. Contains section on **"Wooden Pile Foundations,"** pp. 188–196.
13. *American Civil Engineers' Pocket-Book,* 1916, M. Merriman. Contains section on **"Piles and Pile-Driving,"** by Ira O. Baker and other sections on **"Piers," "Docks," "Ferries,"** and **"Harbor and River Works."**
14. *Mechanical Engineers' Handbook,* 1916, Lionel S. Marks. Also contains sections on **"Piles"** and **"Driving"** and other data.
15. *The Building Trades' Handbook.* **"Piles,"** and **"Spread Footings."**
16. *West Coast Lumbermen's Association:*
   (*a*) "Structural Timber Handbook on Pacific Coast Woods." 1916, (4E3*p*1). Section on **"Piling,"** with diagram, pp. 255–259.

Uses of Wood in Building Construction. 4E

Structures in General. 4E1

See publications mentioned under Standing Timber and Manufactured Lumber (4B), in many of which features of building construction are treated.

With respect to the various "Specifications" and "Standards" which follow, it is to be noted that the mandatory provisions of all Building Codes, state or municipal, must first govern construction in each locality.

Governmental Publications. 4E2

4E2a *U. S. Department of Agriculture, Forest Service, Forest Products Laboratory: Office of Public Roads and Rural Engineering, and Bureau of Animal Industry*, contribute publications relating to uses of wood, among which are those mentioned below. For **functions and services** in connection with **agricultural structures and problems**, of various divisions of the Department of Agriculture, see description under 12H1 in the Structural Service Book, Vol. I. The office of Public Roads and Rural Engineering has prepared for exhibition and illustration a most complete **model** in miniature **of a farmstead** with all buildings and accessories.

4E2a1 *Agricultural Bulletins* (Forest Service).

(*a*) **"Cotton Warehouse Construction,"** R. L. Nixon. (No. 277.) 1915. 38 pp.; 13 figs. 10 cents.

4E2a2 *Farmers' Bulletins* (Forest Service).
(Price from Superintendent of Documents, 5 cents each.)

(*a*) **Silos and Silage**, Chas. S. Plumb. (No. 32.) 1895.
(*b*) **Farm Buildings**, C. G. Elliott. (No. 40.) 1896.
(*c*) Practical Suggestions for **Farm Buildings**, Geo. G. Hill. (No. 126.) 1901.
(*d*) **Hog-Houses**, J. A. Warren. (No. 458.) 1911.
(*e*) **The Sanitary Privy**, C. W. Stiles and L. L. Lunsdem. (No. 463.) 1911.
(*f*) **Poultry-House** Construction, Alfred H. Lee. (No. 574.) 1914.
(*g*) **Home-made Silos**, H. Rabild, A. K. Risser and K. E. Parks. (No. 589.) 1915.
(*h*) **Ice-Houses** and the Use of Ice on the Dairy Farm, J. T. Bowen and G. H. Lambert. (No. 623.) 1915.
(*j*) A Plan for a **Small Dairy-House**, E. Kelly and E. E. Parks. (No. 689.) 1915.
(*k*) **Equipment for Farm Sheep-Raising**, V. O. McWhorter. (No. 810.) 1917. 28 pp.; 37 figures.

4E2a3 Circulars, *Bureau of Animal Industry*.

(*a*) **Designs for Dairy Buildings.** (No. 131.) 5 cents.
(*b*) How to Build a **Stave Silo.** (No. 136.) 5 cents.
(*c*) The Sanitary Construction and Equipment of **Abattoirs** and **Packing-Houses.** (No. 173.) 5 cents.
(*d*) A Plan for a **Small Dairy-House.** (No. 195.) (Edition nearly exhausted.)

4E2b *The U. S. Department of the Interior, Bureau of Mines* (2A3), issues:

1. Bulletin No. 87: **"Houses for Mining Towns,"** J. H. White. 1914. 64 pp. Contains a treatise on **small houses**, in groups and as towns. Illustrated with map of model mining town, plans, elevations and perspectives of concrete, brick, and **wooden houses**, chiefly the latter, with framing drawings and other details of construction. 15 cents.

2. Technical Paper No. 18: **"Magazines and Thaw-Houses for Explosives."** 34 pp. Text, data, and diagrams of cement-mortar construction, with wood linings inside and out, bills of materials, etc.

4E2c *U. S. Department of Labor, Bureau of Labor Statistics*, recently conducted a study of housing conditions in the United States. Report is now being prepared, and an article in summarization of this report appeared in November, 1917, issue, *Monthly Review*, in which, under **"Employers' Housing in the U. S.,"** Leifur Magnusson, described company towns and houses, with illustrations and plans of **typical company houses of wood construction.**

4E2d *U. S. Department of the Interior, Bureau of Education*, (described under 12G1 in the Structural Service Book, Vol. I) has prepared, in coöperation with the National Lumber Manufacturers' Association, pamphlets entitled **"The One-Story Schoolhouse Idea"** and **"Teachers Cottages,"** listed under 4E3*m*5.

Societies, Associations and Other Bodies. 4E3

(*a*) *American Society for Testing Materials* (1A5*c*):

1. See Proceedings published annually for Reports of Committee (D7) on Timber. For references to its work and Standards of this Society, see 4B3*a*.

(*b*) *American Railway Engineering Society* (1A2*c*):

1. See Manual for reports of Committee on Grading of Lumber. For references to its work and Standards of this Society see 4B3*b*.

(*c*) *National Fire Protection Association:*

1. **The Committee on Uses of Wood in Building Construction**, the *chairman* of which is Julius Franke, architect, New York City, has been working for the past two years on specifications for **Standard Mill Construction** Type of Buildings. The activities of the Committee previous to that culminated in a valuable report in 1915 on "The Inflammability of Treated and Untreated Woods," as referred to under 4C.

At the convention in 1917, the Committee submitted a report embodying specifications which, while containing several new features—the question of **decay of wood, strength of timber** and **calculations** for same, and also **quality and grade** of timbers having been introduced—was in the main a revision of the Standard Specifications for Mill-Constructed Buildings, which was published by the National Board of Fire Underwriters for several years in a little pamphlet prepared by the N.F.P.A. called "Uniform Requirements." Those specifications were essentially the same as the specifications of the Associated Factory Mutual Fire Insurance Companies.

In the report of the Committee, to the Convention in May, 1918, in Chicago, slight changes are included, and the specifications will have an Appendix giving standard specifications for structural timbers suggested by the U. S. Forest Service and adopted by the American Society for Testing Materials, the U. S. Shipping Board, and the Southern Pine Association. The report in 1917 having been accepted as a tentative Standard of the N.F.P.A. and referred to the Committee for reconsideration in the light of any criticism received before being finally presented this year, it is expected that the Convention will, after approval of this new standard, order it printed for distribution.

See, among others, the following publications of the N.F.P.A. listed under "Publications Available" on pp. 43 and 44 of the Structural Service Book, Vol. I.

2. **"Mill Construction Buildings,"** C. E. Paul. (Identical with "Heavy Timber Mill Construction Buildings" (4E3*m*1a).

3. **"Requirements for Standard Mill Constructed Buildings."** Proceedings, Vol. 12, p. 103, and Vol. 21, 1917.

4. See **"Warehouses, Construction and Protection,"** C. H. Patton, Proceedings, Vol. 14, p. 125.

5. **"Field Practice: Inspection Manual."** See, "Structural Defects: Suggestions for Their Elimination and Protection."

(*d*) *National Board of Fire Underwriters:* (See pp. 44, 45, Vol. I.)

1. "Building Code. In addition to buildings in general and all parts of their construction, the following are separately treated: Classification of Buildings, **Ordinary Timber Construction, Mill Construction, Frame Buildings, Structural Timber, Working Stresses** of Structural Timber. **Allowable Loads**, and **Fire Stopping.**

2. "Dwelling Houses." 1916. Contains sections on **"Frame Dwellings," "Fire Stopping," "Floor and Roof Construction,"** and others of interest. See index to same.

3. **"Hose Houses for Mill-Yards."**

(*e*) *Underwriters Laboratories* (1A4):

1. List of Appliances Inspected for **Accident Hazards.**

2. For "List of Inspected **Mechanical Appliances,"** see 4E5.

(*f*) *Inspection Department, Associated Factory Mutual Fire Insurance Companies:* (See p. 45, Vol. I.)

1. See **"Anchorage of Roofs"** for detail drawings and recommendations for securing wooden roofs.

2. See "Dry Rot in Factory Timbers" for small illustrations and brief reference to **standard mill and factory construction.**

3. For "Approved **Fire Protection Appliances"** see 4E5.

(*g*) *Associated Mutual Fire Insurance Companies of New England:*

1. **"Standard Mill Construction,"** shown in **Report V**, issued by the Insurance Engineering Experiment Stations under directions of Boston Manufacturers Mutual Fire Insurance Co. This is illustrated and described in Chapter VIII of "Heavy Timber Mill Construction Buildings" (4E3*m*1b). The Report is now obtainable from the Associated Factory Mutual Fire Insurance Companies by whom the work of the Experiment Station has been taken over. (See (*f*) above.)

(*h*) *The Associated Metal Lath Manufacturers:*

1. See "Metal Lath Handbook." Contains descriptions and detail drawings for **"Protection of Steel Beams in Slow-Burning or Mill Construction;" "Fire Stops;"** and "Mill Construction Buildings Protected by Metal Lath and Plaster."

(*j*) *American Society of Civil Engineers* (1A2*a*):

1. "Proceedings" contain numerous papers and discussions applicable here. Each issue also contains a **"List of Recent Engineering Articles of Interest."**

(*k*) *University of Illinois, Engineering Experiment Station* (3H2*c*):

1. **"A Study of Roof Trusses,"** N. Clifford Ricker. Bulletin No. 16, 1908. 15 cents.

2. **"Tests of Timber Beams,"** Arthur N. Talbot. 1910. Bulletin No. 41. Free.

(*l*) *Illinois Society of Architects* formerly had a Committee on Lumber and Timber Specifications, the work of which Committee it is understood is now merged with that of the Committee on **Standardization of Architects' Specifications.**

In the "Handbook for Architects and Builders," Vol. XX, 1917, published by this Society, will be found **"Standard Specifications for Southern Yellow Pine Timbers,"** as recommended by the Society, being an authorized reprint from the copyrighted standards of the A.S.T.M.

Following these two pages are several **paragraphs of application** for securing certain results in the use of Southern Yellow Pine Structural Timbers, arranged in convenient manner for use in architects' specifications.

(*m*) *National Lumber Manufacturers Association:*

1. *Engineering Bulletins:*
   (*a*) No. 1: **Timber for Structural Purposes,** E. A. Sterling. January, 1916. 20 pp.
   (*b*) No. 2: **"Heavy Timber, Mill Construction Buildings,"** C. E. Paul. May, 1916. Contains chapters on: Mill Construction Defined; Exterior Walls, Fire Walls, and Enclosures; Floors; Posts or Columns; Roofs; Fire Protection; Cost of Mill Construction Buildings; Standard Mill Construction; Quality and Kind of Timber Used; Formulas for Design in Mill Construction (with table of working unit stresses). 67 pp.; illus. (See, also, 4E3*c*2 and 4E3*n*2 as of similar purport.)
   (*c*) No. 3: **"Timber Highway Bridges,"** C. E. Paul. April, 1918. 72 pp.
2. *Technical Letters:*
   (*a*) No. 4: **"Building Code Suggestions"** (Fire Stops, Careful Workmanship, and Proper Selection of Materials as Safeguards in Frame Dwelling Construction). August, 1916. Construction details.
   (*b*) No. 5: **"Building Code Suggestions"** (Chimneys, Flues, Smokepipes, and Fireplaces in Their Relation to the Fire Hazard in Dwellings, with Detailed Provisions for Incorporation in Municipal Building Codes). August, 1916. Construction details.
   (*c*) No. 6: **"Economics of Concrete and Timber Factory Buildings,"** F. E. Davidson. September 2, 1916.
   (*d*) No. 10: **"How to Build Fire-Safe with Wood,"** R. S. Whiting. September, 1917.
   (*e*) No. 12: **"Standard Specifications for Mill Construction Buildings."** 1917.
   (*f*) No. 13: **"Lattice Roof Trusses."** 1917.
3. *Miscellaneous:*
   (*a*) **"The One-Story Schoolhouse Idea,"** F. Leather. (Prepared in coöperation with the United States Bureau of Education (4E2*e*), February, 1917. Contains 56 pages of valuable information, a list of over one hundred one-story schools in America, and many plans and other illustrations. Technical suggestions and data on fire-resistive wood construction and discussions of heating, ventilation, and other subjects. An important contribution to the study of one-story buildings as compared with those of greater height.
   (*b*) **"Teachers' Cottages,"** R. S. Kellogg, in coöperation with the United States Bureau of Education (4E2*e*), April, 1916. 31 pp., illustrations of foreign and American accommodations for teachers and a valuable list of other references.
   (*c*) "John Smith's **Garage,"** R. S. Kellogg; 1915; 6 pp.; illus.
   (*d*) **"Working Drawings** and Photographs Showing the **Construction of Farm Buildings** for Use **in Manual Training Schools."** March, 1917. 15 pp.
   (*e*) **"Housing and Industry,"** R. S. Whiting. March, 1918. 24 pp.; with illustrations of larger industrial housing developments of the United States and a comprehensive comparison of methods of financing and constructing.
   (*f*) **"Wood Construction in Relation to Fire Loss."**
4. *Farm Bulletins on "Rural Architecture:"*
   The reported demand for these publications as a distinct step in the elevation of the standards obtaining in these so frequently neglected types of structures is indicative of the interest aroused on the part of architects and others desirous of developing a finer type of rural architecture.
   (*a*) No. 1: **Implement Sheds.**
   (*b*) No. 2: **Grain-Storage Buildings.**
   (*c*) No. 3: **The Preservative Treatment of Farm Timbers.**
   (*d*) No. 4: **Hog-Houses.**
   (*e*) No. 5: **Poultry-House Construction.**
   (*f*) No. 6: **Ice-Houses and Ice-Supply.**
   (*g*) No. 7: **Dairy and General Purpose Barns.**
   (*h*) No. 8: **Farm-Houses.**
   (*j*) No. 9: **Lumber's Place on the Farm.**
5. *Better Buildings:*
   (*a*) No. 1: **Your Garage—How to Build It,** C. R. W. Edgcumbe. 1916. 16 pp.; floor plans and elevations.
   (*b*) No. 2: **Farmhouses—How to Build the New and Improve the Old,** W. A. Etherton. 1917. 30 pp.; illus.

(*n*) *Southern Pine Association* (See, also, p. xix, xxvi):

1. **"Southern Pine Manual: Standard Wood Construction,"** 1917 (fifth edition). Contains, in addition to sections elsewhere referred to, diagrams, calculations, specifications, and data relating to beams, columns, floors, partitions, etc. 128 pp. $1.
2. **"Mill Construction,"** C. E. Paul. (Same as 4E3*c*2 and 4E3*m*2, except for chapter on "Quality and Kind of Timber Used.")
3. **"Service and Economy in Building."** 23 pp.; illustrated.
4. **"The Home-Built Garage."** 16 pp.; illustrated.
5. **"Implement Sheds."** 11 pp. Tables of space required.
6. **"Smaller Farm Buildings."** 23 pp.; construction details.
7. **"How to Choose and How to Use a Silo."** 39 pp.; illus.
8. **"School Architecture** That Embodies Beauty, Economy, Convenience, Safety." 28 pp.; contains floor plans and elevations with comments by the designers of ten school buildings of the Pavilion Type. These were selected as the best of 43 entries in a "prize contest" conducted by this association for one-story buildings of southern pine.

(*o*) *North Carolina Pine Association:*

1. **"Planning the New Home."** 28 pp. Colored illustrations of stained boards; exteriors and floor plans of ten modern homes.
2. **"North Carolina Pine for Architects and Contractors."** 15 pp. Colored illustrations of stained boards. Illustrates houses and treats of adaptability, use for doors and sash; digest of grading rules.
3. **"Farm and Building Book,"** Wm. A. Radford. 1916. 160 pp. Contains elevations, floor plans, construction details, etc.

(*p*) *West Coast Lumbermen's Association:*

1. **"Structural Timber Hand Book on Pacific Coast Woods."** 1916. 289 pp. Complete descriptions of Pacific coast woods, specifications, tables for beams and floors, safe loads, diagrams and illustrations. $1.
2. **"The Douglas Fir Silo."** 24 pp.; illus.

(*q*) *Association of Creosoting Companies of the Pacific Coast:*

1. **"Structural Timber Handbook."**
2. **"Strength Values for Structural Timbers."**
3. **"The Douglas Fir Silo."**

(*r*) *California Redwood Association:*

1. **"California Redwood on the Farm."** 38 pp.; illus. Gives uses and recommendations for painting or staining.
2. **"The Home of Redwood."** Illustrating and describing building erected at the Panama-Pacific Exposition. L. C. Mulgardt, architect.
3. **"Specialty Uses of Redwood"**—information on fire-resistance and use in **door cores** and **slow-burning construction.**

(*s*) *Arkansas Soft Pine Bureau:*

1. **"How to Build."** 24 pp.; illustrations of the wood, and recommended practice in frame construction.

(*t*) *White Pine Bureau:*

1. **"White Pine in Home Building."** 35 pages, describing qualities, availability, and cost. Illustrations of attractive exteriors with "close-up" views of entrances, fences, and features.
2. The White Pine Series of **Architectural Monographs.** Especially prepared for architects, under the direction of Mr. Russell F. Whitehead, to present classified illustrations of wood construction critically described by representative American architects, the pictorial side being made the dominant feature and the examples being selected for their general attractiveness. Beginning with July, 1915, nine were published to January, 1917, and listed under 5G20 in Serial No. 5, 1917, since which time the following have been issued:

   Vol. III, No. 1, **Three-Story Houses of New England.** Text by Frank Chouteau Brown.

   Vol. III, No. 2, **The Early Wooden Architecture of Andover, Massachusetts.** Text by Addison B. Le Boutillier.

   Vol. III, No. 3, **Old Homes of Newburyport, Massachusetts.** Text by Richard Arnold Fisher.

   Vol. III, No. 4, **A White Pine House to Cost $12,500.** Report of Jury of Award.

   Vol. III, No. 5, **The Bristol Renaissance.** Text by Joy Wheeler Dow.

   Vol. III, No. 6, **The Early Dwellings of Nantucket.** Text by J. A. Schweinfurth.

   Vol. IV, No. 1, **Marblehead.** Text by William Truman Aldrich.

   Vol. IV, No. 2, **Some Old Houses on the Southern Coast of Maine.** Text by C. Howard Walker.
3. **"Classified Recommended Uses for White Pine in House Construction and White Pine Standard Grading Rules."** 197 pp. 1917. An exhaustive treatise, compiled for **architects' use in specifying white pine** lumber, to supply the information heretofore lacking with respect to "frame construction" and the grades of lumber, and to enable those writing specifications to refer in the language of the lumber trade to the specific grades of white pine most economically adapted to various building uses. Gives "Recognized Defects," "Comparative Qualities," complete lists, tables, detailed drawings, and photographic reproductions of various grades, etc.
4. For Announcement of Third Annual **Architectural Competition** of the **White Pine** Monograph Series, see Industrial Section, p. xii, White Pine Bureau.

(*u*) *Southern Cypress Manufacturers' Association:*

1. See the volumes of **"Cypress Pocket Library"** (4B3*p*1).

Handbooks and Other References. 4E4

(*a*) See Crosby-Fiske Handbook of Fire Protection for **"Slow-Burning Construction:** Recommendations for Mill Construction," and **"Improvements for Existing Buildings."**

(*b*) See "Fire Prevention and Fire Protection," J. K. Freitag, for **"Slow Burning or Mill Construction,"** Chap. IV.

(*c*) See Kidder's Pocket-Book, 1916:

1. **"Wooden Mill and Warehouse Construction,"** A. P. Stradling, of Phila. Fire Underwriters' Association, Chap. XXII.

2. **"Strength of Wooden Columns."** Tables of safe loads, metal caps and bolsters for wooden columns, pp. 448–454.

3. For data on **wooden beams**, formulas and tables, working unit stresses for woods, built-up **girders**, types of roof **trusses**, strength and stiffness of floors, with tables of **loads for floors and rafters**, etc., see Index.

(*d*) See Trautwine's Civil Engineer's Pocket-Book, for **timber and wooden columns**, price-list, and business directory.

(*e*) See "Building Construction and Superintendence," Part II, **"Carpenters' Work,"** F. E. Kidder:

1. Chapter II, **"Wooden Framing, Ordinary Construction,"** pp. 89–166.

2. Chapter VII, **"Heavy Wooden Framing,"** pp. 668–741.

3. **Form of Specifications** for woodwork, millwork, painting, finishing, and wooden building construction, Chap. VIII.

4. Part III, separate Vol., **"Trussed Roofs and Roof Trusses."**

(*f*) See "Mechanical Engineers' Handbook, 1916," Lionel S. Marks:

1. **"Building Construction,"** pp. 1264–1304.

2. **"Industrial Buildings,"** Charles Day, pp. 1317–1333.

(*g*) See "Mechanical Engineers' Pocket-Book," William Kent, for **notes and tables**, pp. 1385–1394, "Construction of Buildings."

(*h*) See "The Building Estimator's Reference Book," F. R. Walker. 1917. Complete treatise on **"Rough Carpentry,"** Chap. X.

(*j*) For dividing of floor areas, types of partitions, stair enclosures, and other **features of industrial buildings**, see "Universal Safety Standards," 1914. Compiled under the direction of and approved by the Workmen's Compensation Service Bureau, New York.

(*k*) See "American Civil Engineers' Pocket-Book," M. Merriman:

1. **"Materials of Construction,"** Rudolph P. Miller. **"Timber."**

2. **"Masonry and Timber Structures,"** W. J. Douglas.

(*l*) See **"Materials of Construction,"** Johnson.

(*m*) See **"The Building Trades' Handbook."**

(*n*) See "Practical Cost Keeping for Contractors," F. R. Walker. 1918. **"Rough Carpentry"** and **"Mill Work and Interior Finish."**

(*o*) The International Library of Technology publishes, under the classification "Architecture," four volumes on **"Building and Carpentry."**

(*p*) "The Use and Abuse of **Half Timber Work**," F. Chouteau Brown *The House Beautiful*, October, 1913.

(*q*) **"Homes That Were Built of Pine,"** M. H. Northend, *House and Garden*, February, 1917. Illus.

(*r*) "Lumber and Its Uses" (4A2*f*), sections on **"Structural Timbers," "Lumber Prices,"** and **"Permanent Advantages of Wood."**

(*s*) Carnegie Steel Company's "Pocket Companion," 1916, contains **Allowable Uniform Loads** for Wooden Beams and Columns of woods, **Specific Gravities and Weights**, and other tables.

(*t*) Jones & Laughlin Steel Company's "Manual" for Architects, Engineers and Contractors, 1916, contains similar data.

(*u*) For **wood cores in fire doors and shutters**, see the various publications mentioned under 4C3. 1917.

(*v*) For **wooden tanks**, see 4D5. 1917.

(*w*) For further information on **Southern Pine** and references to **"Mill Construction,"** see Industrial Section, pp. xxvi, xix, Southern Pine Association.

Some Wood-Construction Accessories. 4E5

(*a*) Very important, with respect to the reduction of shrinkage in wood construction when open and the cracking of plaster when closed, is the consideration of **post caps, hangers, and other devices** designed, not only for structural support, but to overcome these features. References to these accessories will be found in many of the publications listed in this issue and also under "Floor Hangers, Roof Connections, and Devices" (4D4), 1917, and "Scuppers, Inserts and Devices" (4C4), 1917.

(*b*) For mechanical **post cap and girder supports** and other appliances and materials inspected and labeled or approved, with names of the articles and manufacturers, see:

1. "List of Inspected Mechanical Appliances" (4E3*e*2).

2. "Approved Fire Protection Appliances," October, 1916 (4E3*f*3).

(*c*) **"Nail Knowledge,"** October 2, 1915, and **"More 'Nail Knowledge,'"** W. T. Flanders, *American Lumberman*, Nov. 27, 1915.

(*d*) For correspondence concerning **lathing nails**, see 5M3. 1917.

(*e*) For **Lightning Protection**, see 4G. 1917.

(*f*) The use of **units** individually applied for **"grounds"** instead of plugging walls for wooden stringers and for laying of "sleepers" for wooden floors is receiving attention, as evidenced by literature of manufacturers, which see for information. These are also referred to in Report of Committee on Manufacturers and Materials in *Journal of Society of Constructors of Federal Buildings*, February, 1916.

(*g*) For the use of **metal lath** in connection with wood construction **in Industrial Housing**, see Industrial Section, p. iv, The Associated Metal Lath Manufacturers.

"Mill-Work," Interior Wood-Finish, Veneering and Finishing. 4E6

As of interest in this connection, see Painting, Varnishing, and Finishing in General, under 12E in the Structural Service Book, Vol. I, 1917. For Floors and Floor Finishing, see 4E8.

(*a*) *United States Department of Agriculture (Forest Service):*

1. **"Sugar Pine."** (Professional paper, Bulletin No. 426.) 15 cents. Describes the qualities of this as an important wood in the manufacture of **special and general mill-work.**

2. **"Veneers"** (statistics and method of production), 1906, 6 pp. (Forest Circular No. 133), 5 cents; 1909, 23 pp. (Forest Products 5), 5 cents; 1910, 6 pp., 5 cents; 1911, 8 pp., 5 cents.

3. **"Circassian Walnut,"** 1913, 12 pp.; illus. (Forest Circular No. 212), 5 cents.

(*b*) *The American Institute of Architects:*

There exists a subcommittee on **Mouldings** of the Committee on Materials and Methods "to procure from the large manufacturers the sizes from which are run the **stock mouldings** commonly used in small-house work; to recommend, for the usual run of present stock mouldings, **substitutes of good design** consistent with the recognized limitations of the manufacturers.

"These to be so worked out by suggested cataloguing as to make it possible for one not familiar with design to select a set of mouldings, each one of which shall be consistent with the others in style and scale; to secure the adoption of these designs and suggested cataloguing by as many of the manufacturers as possible; and to, in some way, inform those using stock mouldings of the better possibilities obtainable through coöperation with the stock manufacturers."

(*c*) See *"Lumber and Its Uses."*

1. Section on "Standard Sizes of Lumber" gives Association Standards for **Ceiling, Partition, Siding, Finish, Shiplap Boards, and Dimension Work.**

2. Section on "Permanent Advantages of Wood" treats of Availability, **Workability, Insulating Qualities, and Figure.**

3. Section on **"Paints and Wood Finishes."**

(*d*) *Southern Pine Association:* (See, also, pp. xix, xxvi.)

1. **"The Standard Moulding Book."** 1916. 37 pp.; with Patterns of Full-sized Mouldings and all forms of finish.

2. **"Directions for Finishing Southern Yellow Pine."** 19 pp.; colored facsimiles of finished woods and other illustrations.

(*e*) *Gum Lumber Manufacturers' Association:* (Now merged, see 4A3*r*.)

1. "Technical Information about **Red Gum."** (No date.) 16 pp.; illustrating and describing the figure with notes on the care of hardwood doors and trim.

2. **"Red Gum Facts."** (No date.) 13 pp. Interior and other uses with formulas for various finishes.

3. See *Canadian Woodworker and Furniture Manufacturer* for April, 1917, being a Feature Number on **Gum Lumber.**

(*f*) *California Redwood Association:*

1. **"California Redwood."** 70 pp.; colored illustrations. Treats of interior trim and gives "Directions for Rare Finishes on Redwood." Eight large colored panels show varying effects of grain.

2. "The Home of Redwood." Use in interiors, **formulas for finishes.**

(*g*) *Arkansas Soft Pine Bureau:*

1. **"Architects' Manual on Arkansas Soft Pine."** 1916. 62 pp.; illus. Proper Finishing, Painting Formulas, 30 pages of full-sized drawings of exterior and interior trim, frames, sills, rails, and Standard Molding Designs and Grading Rules for finish.

2. **"Arkansas Soft Pine: Interior Trim."** 18 pp.; illus.

3. "Arkansas Soft Pine: **How to Finish and Paint It."**

4. "Not a House but a Home." **Home Construction**, Hints for the Layman; Cottage and Residence Designs, with introductions by Aymar Embury II, Architect. 36 pp.

(*h*) *West Coast Lumbermen's Association:*

1. "Suggestions for the **Finishing of Western Woods."**

(*j*) *Journal of Society of Constructors of Federal Buildings:*

1. **"Fumed Oak,"** Chas. E. Morrell, November, 1915.

(*k*) *White Pine Bureau:*

1. "Classified Recommended Uses for **White Pine in House Construction** and White Pine Standard Grading Rules," described under 4E3*j*3.

2. See **"Architectural Monographs,"** described under 4E3*i*2.

(*l*) *North Carolina Pine Association:*

1. "Your Home Beautiful." 16 pp.; colored illus.

2. "**North Carolina Pine** for Architects and Contractors" (4E302).
3. See "Planning the New Home" (4E301).
4. "**N.C.P. Millwork Manufacturers,**" giving a list of same.
5. "**Inspection Rules.**" Contents noted under 4B401.

(*m*) *Southern Cypress Manufacturers' Association:*
1. "Cypress Pocket Library" (4B301).

(*n*) See "**Veneered Work in Building Construction,**" G. D. Crain, Jr. Article printed in *Veneers*, September, 1916.

(*o*) "**Decorative Value of Wood,** S. J. Record, *House and Garden*, November, 1917, illus.

(*p*) See *Kidder's Pocket-Book*, 1916. Various sections.

(*q*) See "*Building Construction and Superintendence,*" Part II, "**Carpenters' Work,**" F. E. Kidder.

(*r*) "The Building Estimators' Reference Book," 1917. F. R. Walker.
1. Chapter XI: "**Mill-Work and Interior Finish,** Erection of Same," treats of Methods of Estimating the Labor Cost.

(*s*) See "Building Trades' Handbook." Information on Windows, and **Outside and Inside Finish,** with many illustrations.

(*t*) For **greenhouse construction,** see 12F6. 1917.

(*u*) In recent years especial attention has been devoted to **standardization** in construction of **doors, sash,** other millwork, and even **interior finish,** along lines of effective design away from the commonly accepted type of "stock" work. Much saving results through efficiency in quantity production and the opportunity thus to utilize time when plants are not required to satisfy demands of the brisker building season.

See Industrial Section, p. xi, for information by the Service Bureau of The Curtis Companies specializing in such work and publishers of "**Woodwork, the Permanent Furniture for Your Home.**" Illustrated with reproductions from photographs of the original subjects differentiating between the figure in oak, birch, and other woods, as furnished in the "white" for carrying out the architect's scheme of color and finish.

Shingles, Lathing and Wall-Boards. 4E7

The subjects covered by this heading will be found included in a great many of the publications referred to under the other subdivisions.

(*a*) In addition to the references given under the above heading as 5K, Serial No. 5, in 1917, and in the *Structural Service Book*, Vol. I, others have been incorporated in a list here omitted for lack of space but which will be furnished upon application to *The Journal.*

(*b*) As of further interest see Wood Preservatives, Shingle Treatments and Fire-Retardants (12D), and Lathing and Plastering (11D6) in the Structural Service Book, Vol. I, 1917.

(*c*) For description of "**Pamak**" **Fire-retardant shingle paints,** see 12D5 in Structural Service Book, Vol. I, 1917.

(*d*) See Industrial Section, p. 111, for reference to **Stucco or Plaster Board** by the Bishopric Manufacturing Co.

Wood Floors and Finishes and Parquetry Work. 4E8

Treated wood flooring and paving previously referred to under 4C2.

(*a*) In addition to the references given under the above heading as 5G, Serial No. 5, in 1917, and in the *Structural Service Book*, Vol. I, others have been incorporated in a list here omitted for lack of space but which will be furnished upon application to the Journal.

As of further interest, see, also, "Painting, Varnishing, and Finishing in General," under 12E in the Structural Service Book, Vol. I, 1917.

Recreation Facilities, Finishing of Woodwork. 4E9

(*a*) Wood is the principal material entering into the construction of so many recreational facilities which are housed from the weather. Many of them require and should receive proper consideration in planning on account of adequate provision which should be made for their accommodation in the structure. References to some, including bowling-alleys and billiard tables, will be found under 5L in the *Structural Service Book*, Vol. I, which see, in addition to data in some few of the publications listed in this issue, such as *Kidder's Architects' and Builders' Pocket-Book*, and the *Handbook for Architects and Builders* of the Illinois Society of Architects.

(*b*) Also, as of interest in connection with woodwork in general, see Serial No. 12, devoted to Paints and Painting, Glass and Glazing, in Vol. I, Section 12B deals with **Research, Tests and Paint Materials;** 12D with **Wood Preservatives, Shingle Treatments and Fire-Retardants;** and 12E with **Painting, Varnishing, and Finishing in General.** In a great many of the publications listed under these sections and in the activities referred to there the characteristics, uses, treatment and finish of woods are constantly under consideration.

(*c*) See Industrial Section, p. xxxv, for reference to **White Lead** by Matheson Lead Company.

"Signs of Change"

A DEPARTMENT DEVOTED TO THE FUTURE OF THE BUILDING INDUSTRY

SULLIVAN W. JONES, *Associate Editor*

A paper has just been published which architects, contractors, and building owners may study with profit to themselves and to the building industry as a whole. It is the plan proposed by The Conference Club for a functional reorganization of the electrical industry into tune with the rapidly changing social and economic conditions. The Conference Club is an informal association of contracting electrical engineers—the architectural profession knows them as the larger electrical contractors—and it is significant that such a plan should be put forward by the contracting "group." It indicates that these men, who have for years been looked upon by architects, by engineers, and by general contractors as a more or less detached factor in building operations, have been thinking with vision and with an understanding of conditions and their causes that may well point the way to reforms reaching far beyond anything now proposed.

The plan is offered at this time, it is stated, in recognition of the absolute need "of bringing the electrical industry into step with the rapid march of progress." It deals principally with the service functions of the manufacturer, the electrical contractor, and the consulting engineer. In the preamble there occur these paragraphs:

"The intellectual ferment causing human progress is mothered by ideals of the heart, not of the head. It tends constantly toward mixing the classes and removing the class distinctions of whatever origin. Business is a matter of the head, and the driving power behind it is self-interest. That is why established business generally turns its face against popular reform, against change of any kind that tends to increase the number of those who benefit as participants in successful enterprise.

"In more normal times than these, 'public opinion' is the expression of this progressive ferment of ideals. Public opinion is the parent of the statute book. Statutes change business methods and business policy. But this process for humanizing, democratizing industry is a long and tedious one, punctuated with strife. It is a process totally out of harmony with our now rapidly changing world. Our common cause, the cause of humanity, has forced us to think in unified terms, and to the discovery of the great economic truth, that industrial efficiency comes only from highly developed and organized coöperative effort, inspired by common loyalty to a common cause. Put less philosophically, industrial efficiency depends for its attainment upon the creation of such conditions and upon the

promise of such rewards for increased effort that every individual works because he wants to, and not because he has to; in short, upon the creation of a community of interest. And so, we cannot attain the full measure of industrial efficiency without also attaining industrial democracy.

"If we hope to carry, without faltering, the crushing burden the war is placing upon us, we shall have to consider the direction and consequence of every forward step we take, not as it may affect each of us alone, but with a mind to its effect upon industry as a whole. We may safely assume that the burden will be fairly equally distributed with respect to each man's earning capacity and worldly possessions. No one can risk shifting his share of the load, or any part of his larger responsibility, to other shoulders. In order that we may find the strength to carry the burden and decrease it by increasing production through the studied economy of effort, we shall have to work together in an invigorating atmosphere of mutual respect in confidence between individuals and between class and class. Our program should provide for industrial peace, growth, and development upon a sound, economic basis. If we fail in this—if we do not find a channel through which may flow the blind irrational forces of discontent—disaster may overtake us."

With these thoughts as a background, the paper proceeds to consider the possibilities for improvement in the present industrial mechanism, as follows:

"The thing we should seek to accomplish cannot be better expressed in broad terms than by quoting from the British Labor Party's Declaration of Purpose: 'We must insure that what is presently to be built up is a new social order, based not upon fighting but on fraternity—not on the competitive struggle for the means of bare life, but as a deliberately planned coöperation in production and distribution for the benefit of all who participate by hand or by brain.' Forget for the moment that this is the pronouncement of labor; take it for your own. It is reflected in the words of every student of current events—the thought behind those words may well be the foundation stone of the new civilization."

The paper then analyzes the present conflict between the interests of the consulting engineer, the contractor, and the manufacturer, and upon the findings, bases its proposals, which it defines as "an attempt to prescribe such service limitations" for these three "as hold promise of assuring for the future an orderly sequence of engineering functions that will be mutually complementary." Under the new order, the electrical contractor is to become the constructing electrical engineer. The omission of any reference to contracting in this connection is characteristic of the breadth of vision apparent throughout the paper.

The proposals are finally summarized in the following brief statement:

1. That the manufacturer change and ultimately abandon his practice of selling direct to the large ultimate consumer and abandon also his policy of making such sales on the basis of expert engineering advice given by his representative.

2. That the consulting engineer organize to increase the scope of his practice to include rendering expert services to those large consumers of electrical products who, heretofore, have been thus served by the manufacturer, and that the consulting engineer establish a close contact with all manufacturers in order that he may familiarize himself with their products and standards, advise with them on the improvements of their product, and function as a coördinator of their several departments.

3. That the electrical contractor reorganize so as to become a constructing engineer with sufficient capital to act as his own jobber, and so that he may assume much of the consulting engineer's detail work. And that he abandon, very largely, his independence as a purchaser of the manufacturer's product, and effect with the latter some sort of close-working contact based upon a liberal policy providing for reciprocal benefits.

One is struck by the similarity between the problems dealt with in this paper and those that confront us in the building industry as a whole. Are we architects going to "sit by the fire and warm ourselves" and wait for a body of contractors to put it up to us as these electrical contractors have to put it up to the consulting engineer? Are we going to let contractors save us from our own dullness and indifference, or are we going to wake up and make our profession a service to the community and "bring it into step with the rapid march of progress"?

As the Journal has announced in the pages of this issue, we are now determined, through the Institute, to face the present and the future with resolution and with all our strength and intelligence, to the end that we too may make our profession of the greatest use to this war-shaken world.

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